



SERVICE / PARTS MANUAL

MODELS: WolfPac™ 3100
 WolfPac™ 3100R (ROPS Option)
 WolfPac™ 3100D (Diesel Roller)



ASPHALT ROLLER

A 100% employee-owned American manufacturer

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CALIFORNIA PROPOSITION 65 WARNING 123

Foreword / Warranty Information

These instructions include:

Safety regulations
Operating instructions
Maintenance instructions

These instructions have been prepared for operation on the construction site and for the maintenance engineer.

These instructions are intended to simplify operation of the machine and to avoid malfunctions through improper operation.

Observing the maintenance instructions will increase the reliability and service life of the machine when used on the construction site and reduce repair costs and downtimes.

Always keep these instructions at the place of use of the machine.

Only operate the machine as instructed and follow these instructions.

Observe the safety regulations as well as the guidelines of the civil engineering trade association. Observe the safety rules for the operation of road rollers and compactors and the pertinent regulations for the prevention of accidents.

Stone Construction Equipment, Inc. is not liable for the function of the machine when used in an improper manner and for other than the intended purpose.

Operating errors, improper maintenance and the use of incorrect operating materials are not covered by the warranty.

The above information does not extend the warranty and liability conditions of business of Stone Construction Equipment, Inc.

Warranty Information

Please enter the following data. This will help expedite any service or warranty work.

1. Machine Type: _____

Machine S/N: _____

2. Engine Type: _____

Engine S/N: _____

3. VIN: _____

4. Purchase Date: _____

5. Dealer/Distributor Information:

Name: _____

Address: _____

Phone #: _____

Fax #: _____

6. Battery
Manufacturer: _____

Battery Type: _____

Battery S/N: _____

Location of above information:

1. Information on S/N tag.

2. Information on engine tag.

3. Information on S/N tag - if applicable.

4. Date you purchased machine.

5. Dealer machine was purchased from.

6. Information on battery and battery warranty card.

Stone Construction Equipment, Inc.
P.O. Box 150, Honeoye, New York 14471
Phone: (800) 888-9926
Fax: (585) 229-2363

L i m i t e d W a r r a n t y

The Manufacturer warrants that products manufactured shall be free from defects in material and workmanship that develop under normal use for a period of 90 days for concrete vibrators and electric pumps, one year for Rhino®, Bulldog®, WolfPac Rollers™, trowels, Stompers®, saws, forward plates, engine powered pumps, Lift Jockey™, Mortar Buggy™ and 6 months for all other products from the date of shipment. The foregoing shall be the exclusive remedy of the buyer and the exclusive liability of the Manufacturer. Our warranty excludes normal replaceable wear items, i.e. gaskets, wear plates, seals, O-rings, V-belts, drive chains, clutches, etc. Any equipment, part or product which is furnished by the Manufacturer but manufactured by another, bears only the warranty given by such other manufacturer. (The Manufacturer extends the warranty period to "Lifetime" for the drum bearings and seals for the mortar mixers, and agrees to furnish, free of charge, the bearings and seals only upon receipt of the defective parts. The warranty is two years for eccentric bearings on the forward plate compactors, mortar and plaster mixer drums, trowel gearboxes, three years on the Bulldog trench roller microprocessor (ECIB) and five years on the Bulldog trench roller eccentric bearings.) A Warranty Evaluation Form must accompany all defective parts. Warranty is voided by product abuse, alterations, and use of equipment in applications for which it was not intended, use of non-manufacturer parts, or failure to follow documented service instructions. The foregoing warranty is exclusive of all other warranties whether written or oral, expressed or implied. No warranty of merchantability or fitness for a particular purpose shall apply. The agents, dealer and employees of Manufacturer are not authorized to make modification to this warranty, or additional warranties binding on Manufacturer. Therefore, additional statements, whether oral or written, do not constitute warranty and should not be relied upon.

The Manufacturer's sole responsibility for any breach of the foregoing provision of this contract, with respect to any product or part not conforming to the Warranty or the description herein contained, is at its option (a) to repair, replace or refund such product or parts upon the prepaid return thereof to location designated specifically by the Manufacturer. Product returns not shipped prepaid or on an economical transportation basis will be refused (b) as an alternative to the foregoing modes of settlement - the Manufacturer's dealer to repair defective units with reimbursement for expenses, except labor, and be reviewed with the Manufacturer prior to repair. A Warranty Evaluation Form must accompany all warranty claims.

Except as set forth hereinabove and without limitation of the above, there are no warranties or other affirmations which extends beyond the description of the products and the fact hereof, or as to operational efficiency, product reliability or maintainability or compatibility with products furnished by others. In no event whether as a result of breach of contract or warranty or alleged negligence, shall the Manufacturer be liable for special or consequential damages including but not limited to: Loss of profits or revenues, loss of use of the product or any associated product, cost of capital, cost of substitute products, facilities or services or claims of customers.

No claim will be allowed for products lost or damaged in transit. Such claims should be filed with the carrier within fifteen days.

Effective January 2004.

Stone Construction Equipment, Inc. • 8662 Main Street, P. O. Box 150 • Honeoye, NY 14471-0150
Phone: 1-800-888-9926 • 1-585-229-5141 Fax: 1-585-229-2363
www.stone-equip.com • e-mail: sceny@stone-equip.com

1. TECHNICAL DATA

1. TECHNICAL DATA

WolfPac 3100/WolfPac 3100R/WolfPac 3100D



1.1 Stone WolfPac 3100 - Specifications

Model	Stone WolfPac 3100	Stone WolfPac 3100R	Stone WolfPac 3100D
Dimensions			
Dry Weight	2296 lbs. / 1041 kg.	2396 lbs. / 1087 kg.	2602 lbs. / 1180 kg.
Operating Weight	2945 lbs. / 1336 kg.	3045 lbs. / 1381 kg.	3263 lbs. / 1480 kg.
Ballasted Weight	3154 lbs. / 1431 kg.	3254 lbs. / 1476 kg.	3472 lbs. / 1575 kg.
L x W x H	82 x 39 x 58 in. 208 x 99 x 147 cm.	82 x 39 x 94 in. 208 x 99 x 239 cm.	82 x 39 x 94 in. 208 x 99 x 239 cm.
Drum Width	35.4 in. / 89.9 cm.	35.4 in. / 89.9 cm.	35.4 in. / 89.9 cm.
Drum Diameter	22 in. / 56 cm.	22 in. / 56 cm.	22 in. / 56 cm.
Side Wall Clearance	1.8 in. / 4.6 cm.	1.8 in. / 4.6 cm.	1.8 in. / 4.6 cm.
Curb Clearance	16 in. / 41 cm.	16 in. / 41 cm.	16 in. / 41 cm.
Front/Rear Wall Clearance	3 in./9in. – 8cm/23cm.	3 in./9in. – 8cm/23cm.	3 in./9in. – 8cm/23cm.
Operating System			
Engine	18 hp / 13.4 kW Honda Twin	18 hp / 13.4 kW Honda Twin	20 hp / 14.9 kW Kubota 3 Cylinder Diesel
Fuel Capacity	8 gallons / 30 liters	8 gallons / 30 liters	8 gallons / 30 liters
Drive	Hydrostatic Double Drum	Hydrostatic Double Drum	Hydrostatic Double Drum
Steering	Center-Point Articulating Hydrostatic	Center-Point Articulating Hydrostatic	Center-Point Articulating Hydrostatic
Water Tank Capacity	40 gallons / 151 liters	40 gallons / 151 liters	40 gallons / 151 liters
Performance			
Vibrating Drum	Front	Front	Front
Centrifugal Force	3000 lbs. / 13.3 kN	3000 lbs. / 13.3 kN	3000 lbs. / 13.3 kN
Frequency	3900 rpm / 65 Hz	3900 rpm / 65 Hz	3900 rpm / 65 Hz
Gradeability	30%	30%	30%
Outside Turning Radius	In - 6.6 ft. Out - 9.5 ft. In - 2.0m Out - 2.9	In - 6.6 ft. Out - 9.5 ft. In - 2.0m Out - 2.9	In - 6.6 ft. Out - 9.5 ft. In - 2.0m Out - 2.9
Infinitely Variable Speed	0 - 5.0 mph / 0 - 8.0 km/hr	0 - 5.0 mph / 0 - 8.0 km/hr	0 - 5.0 mph / 0 - 8.0 km/hr
Standards	Hour Meter, Ignition Switch, Neutral Ignition Interlock, Transport Link, Lifting Points, Anti- Vandal Protection, Adjustable Safety Sliding Seat, Hydraulic Transmission By-Pass, Hydraulic Pressure Test Points, Horn	ROPS, Hour Meter, Ignition Switch, Neutral Ignition Interlock, Transport Link, Lifting Points, Anti-Vandal Protection, Adjustable Safety Sliding Seat, Hydraulic Transmission By-Pass, Hydraulic Pressure Test Points, Horn	ROPS, Hour Meter, Ignition Switch, Neutral Ignition Interlock, Transport Link, Lifting Points, Anti-Vandal Protection, Adjustable Safety Sliding Seat, Hydraulic Transmission By-Pass, Hydraulic Pressure Test Points, Horn

1. TECHNICAL DATA

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

1.1 SPECIFICATIONS Continued

BRAKES: SERVICE PARKING	Hydrostatic Manual operation friction
RECOMMENDED FUEL	Gasoline 86 octane minimum (Honda) No. 2 diesel fuel (Kubota)
ELECTRIC	12 volt system battery BCI group 70 550 cca 25 amp charge system (Honda) 40 amp charge system (Kubota)
HYDRAULIC OIL	Mobil Drive Clean Oil 20W-50 (V.I. 124) 162 cST at 40 degrees Celsius 18.1 cST at 100 degrees Celsius Capacity 12 gallons /45.4 liters
ECCENTRIC OIL	Mobil Delvac 1230 30W, 12 ounces (.36 liters)
ENGINE OIL	Mobil Delvac 1200 10W30, (check engine manual for volume capacity)
SPARK PLUGS	NGK BPR6ES, NIPPONDENSO W20EPR-U gap .028-.031 inches (.70-.80 mm) (Honda)
GREASE FITTINGS	Mobilgrease XHP222 (NLGI 2EP Lithium Complex)
BATTERY	12 Volt – Standard duty battery BCI group 70 – 550CCA

1.2 MACHINE SOUND LEVEL TEST

Machine Type:	WP3100 (Honda)
Sound Level Meter Calibration Date:	December 19, 1995
Meter Type:	Simpson Model 886-2 Type 2
Test Date:	December 19, 1995
Test Conditions:	
Temperature:	60 degrees Fahrenheit
Ambient Sound:	60 dba slow mode
Soil Condition:	Silts and clays
Engine Speed:	3400 rpm
Frequency:	3900 rpm
Test Site:	Honeoye, New York USA
Sound Level at Operator Position:	89 dba 93 dba with vibe

2. HEALTH & SAFETY

2. HEALTH & SAFETY

Safety Precautions

Before using this equipment, study this entire manual to become familiar with its operation. Do not allow untrained or unauthorized personnel, especially children, to operate this equipment. Use only factory authorized parts for service.

When warning decals are destroyed or missing, contact the Manufacturer immediately at 1-800-888-9926 for replacement. For the safety of yourself and others, it is imperative that the following rules are observed. Failure to do so may result in serious injury or death.

FOLLOW SAFETY INSTRUCTIONS



- Carefully read all safety messages and decals in this manual and on your machine safety signs. Keep decals in good condition. Replace missing or damaged decals. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs and decals are available through your dealer.
- Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.
- Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.
- If you do not understand any part of this manual and need assistance, contact your dealer.

UNDERSTAND SIGNAL WORDS

⚠ DANGER

⚠ WARNING

⚠ CAUTION

- A signal word – DANGER, WARNING, or CAUTION – is used with the safety-alert symbol. DANGER identifies the most serious hazards.
- DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



- This notation appears before warnings in the text. It means that the step which follows must be carried out to avoid the possibility of personal injury or death. These warnings are intended to help the technician avoid any potential hazards encountered in the normal service procedures. We strongly recommend that the reader takes advantage of the information provided to prevent personal injury or injury to others.

2. HEALTH & SAFETY

Safety Precautions



USE COMMON SENSE WHEN HANDLING FUELS

- Transport and handle fuel only when contained in approved safety container.
- Do not smoke when refueling or during any other fuel handling operation.
- Do not refuel while the engine is running or while it is still hot.
- If fuel is spilled during refueling, wipe it off from the engine immediately and discard the rag in a safe place.
- Do not operate the equipment if fuel or oil leaks exist - repair immediately.
- Never operate this equipment in an explosive atmosphere.



- Operator must always be seated when roller is running.
- Never allow more than one person on roller.
- Always turn engine off before dismounting from roller.
- Always apply parking brake when not in use.
- Never park roller on a hill.
- Never operate roller on slope greater than 15 degrees.
- Do not operate the roller in standing water.



- Ear protection required when operating this equipment.
- Exposure to loud noise can cause impairment or loss of hearing.



HOT SURFACES

- Muffler, engine, and engine shroud may be hot.
- Allow all components in the engine compartment to cool before performing any service work.



- Never operate unit in a poorly ventilated or enclosed area.
- Avoid prolonged breathing of exhaust gases.
- Engine exhaust fumes can cause sickness or death.

2. HEALTH & SAFETY

Safety Precautions



- Qualified personnel only. No untrained operators. Serious injury may occur.
- Users must be trained to operate this roller. Read the Operator's Manual and Engine Owner's Manual. Learn to operate this roller safely.
- Do not articulate on grades larger than 15°, roller may tip over.
- Do not operate across the sides of hills, roller may tip over.
- Do not operate at the edge of mats or roads, roller may tip over.
- Do not stand, be seated when roller is running.
- Do not park the roller on hills.
- Always turn off engine and apply brake before dismounting.



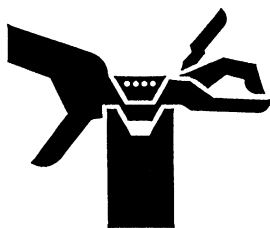
- Hydraulic system produces high pressures--incorrect hose replacement can cause serious personal injury. When performing service, refer to Operator's Manual for hose identification and connections.



- Caution: Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury.
- Hydraulic fluid escaping under pressure from a very small hole can be almost invisible. Use a piece of cardboard or wood to search for possible leaks.
- Never use your hands to detect pressure leaks.
- Hydraulic tank temperature can reach 180° F maximum.



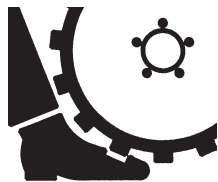
- Pressurized release of fluids from hydraulic system can cause serious burns.
- Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.



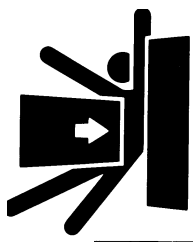
- Never perform any work on the roller while it is running. Before working on the roller, stop the engine and disconnect the spark plug wire(s) to prevent accidental starting, block drums to prevent rolling.
- Keep engine cover closed during the operation.
- Keep hands, clothing and jewelry away from all moving parts.
- Keep all guards in place.

2. HEALTH & SAFETY

Safety Precautions



- Keep feet clear of all drums.
- Keep work area free of bystanders.
- For foot protection, wear steel toe shoes or toe pads.



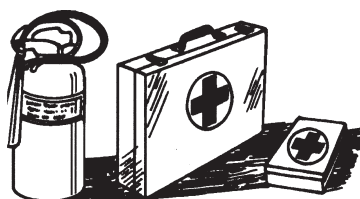
- Caution: Keep away from the machine's articulation area when the engine is running.
- Only start engine from operator's seat.
- Before starting machine, make sure that there are no persons or obstacles near or under machine.

PRACTICE SAFE MAINTENANCE



- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate, service or adjust machine while it is moving. Keep hands, feet, and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.
- Securely support any machine elements that must be raised for service work.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.
- Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

PREPARE FOR EMERGENCIES



- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

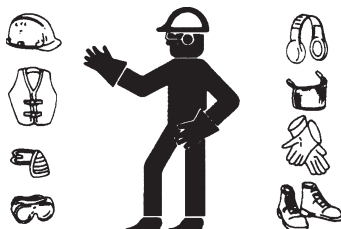
2. HEALTH & SAFETY

Safety Precautions



- Starting fluid (ether) is highly flammable, do not use or an explosion or fire may result.

WEAR PROTECTIVE CLOTHING



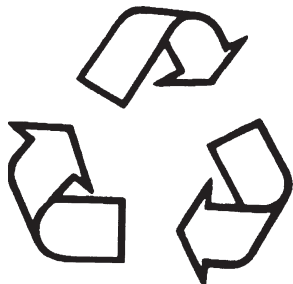
- Wear close fitting clothing and safety equipment appropriate to the job.
- Prolonged exposure to loud noise can cause impairment or loss of hearing.
- Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.
- Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.



PREVENT BYPASS STARTING

- Avoid possible injury or death from engine runaway.
- Do not start engine by shorting across starter terminal. Engine will start with PTO engaged if normal circuitry is bypassed.
- Start engine only from operator's station with PTO disengaged or in neutral.

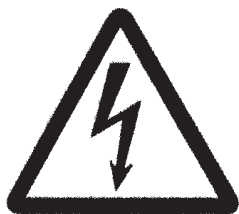
DISPOSE OF WASTE PROPERLY



- Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.
- Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.
- Do not pour waste onto the ground, down a drain, or into any water source.
- Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.
- Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center.

2. HEALTH & SAFETY

Safety Precautions



Battery Charging

- Read and understand the Maintenance Section of this manual before attempting to charge the battery.
- Before using a charger, read all the manufacturers' instructions for, and caution markings on (1) charger and (2) battery.



- Wear personal protective equipment including gloves and complete eye protection that protects eyes from all angles.
- Never work alone with electrical equipment. Make sure that someone is nearby to give assistance if you need help.
- Reduce explosive gas (hydrogen). Batteries give off explosive gases when charging and serious injuries can occur. Be sure the area around the battery is clean and well ventilated before and during the charging process.



- Avoid flames and sparks near the battery. Do not smoke or weld near the battery. Keep flames, matches, lighters, cigarettes or other ignition sources away from the battery.
- Use only cables and clamps that are well insulated and in good condition to make connections between battery and charger.



- Exercise caution in using metal tools on or near the battery to reduce the risk of short circuits that may cause battery explosions. Do not place tools on top of the battery.
- Avoid overcharging batteries. Some chargers can overcharge a battery if left connected for an extended period of time resulting in loss of water and creation of hydrogen gas. Rising battery temperature and vigorous gassing are clear indications of excessive charging which may reduce battery life.
- So called FAST (also known as High Rate or Boost) chargers should be used with caution. Do not use a fast charger for more than 30 minutes on any battery.



- In very cold weather, a discharged battery may freeze. Never charge a frozen battery. Gases may form which can crack the case and release battery acid.
- Avoid contact with corrosion due to battery acid. Battery posts may have acid corrosion that may be harmful to eyes and skin.
- If the battery is to be removed and/or replaced, always use a battery carrier. Carrying the battery by hand may put pressure on its ends, causing battery acid to be forced out the vent caps. Avoid tipping the battery, which may cause the release of battery acid through the vent caps. Avoid dropping the battery. Batteries can be heavy and may cause injuries if dropped. Dropping the battery can crack the case and release battery acid.



- Be sure to wash your hands with soap and water after servicing or handling the battery. This will help neutralize any acid you may have contacted. Always have plenty of fresh water and soap nearby in case battery acid contacts the eyes, skin or clothing. If battery acid contacts the skin or clothing, wash immediately with soap and water. If battery acid enters the eye, immediately flood eye with cold running water for at least fifteen (15) minutes and get medical help immediately.

3. MAINTENANCE

3. MAINTENANCE

WolfPac 3100/WolfPac 3100R/WolfPac 3100D



3.1 IMPORTANT

The person attempting *any* of the following maintenance tasks must be authorized to do so and have read *and* understood *all* sections within this manual.

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

- 21 -

3. MAINTENANCE

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

3.3 ROLL OVER PROTECTIVE STRUCTURES (ROPS)

Proper inspection and maintenance procedures can ensure that the ROPS will perform the lifesaving function they are designed for and expected to do. Make regular, periodic inspections to ensure that the ROPS are damage-free and thus capable of functioning in an upset.

Generally ROPS structures are not intended as external load carrying members and must not be used to mount attachments such as pull hooks, winches, side brooms, etc. without the manufacturer's approval.

Modifications to basic design should be avoided as recertification is required.

3.3.1 Inspection/Maintenance of ROPS/Seat Belts

Scheduled, frequent visual checks of mounting hardware by the operator or service personnel are recommended. Inspection with regular service intervals is suggested. During the inspection check for the following:

- Worn, damaged, or missing resilient mounts. Excessive motion or rattling during operation are indications of a problem.
- Loose, missing, or damaged mounting hardware (bolts, nuts, washers, etc.). Bolts should be checked for proper torque.
- Cracks in ROPS structure and mounting system. The machine should be cleaned, as necessary, to allow inspection for cracks in the structure and mounting system. Rust lines should be taken as indications of cracks and verified by inspection. Some cracks will badly affect the ROPS function. If in doubt, consult the manufacturer.
- Corrosion. Extensive paint peeling and rust should be noted and corrective action taken.
- Seat belt. The presence and operability of a

seat belt should be noted. The belt should be clean, free of dirt and grease, and the latch should function smoothly. The structure should be inspected following a roll over, collision, or fire.

WARNING

DO NOT REPAIR, MODIFY, OR ADD ATTACHMENTS TO ROPS UNLESS AUTHORIZED IN WRITING BY THE MANUFACTURER.

3.4 ADDITIONAL SERVICE INFORMATION

This is not a detailed engine service manual. If you want more detailed service information refer to engine manuals:

- 56237 Manual Engine Gx610/Gx620
- 56238 Manual Shop Gx610/Gx620
- Kubota Diesel Engine Owner's Manual (provided with WP3100D)

WARNING

BEFORE MAKING ANY ADJUSTMENTS, BE SURE THE ROLLER IS PARKED ON LEVEL GROUND, PARKING BRAKE IS ON AND DRUMS ARE BLOCKED. DISCONNECT BATTERY TO AVOID ACCIDENTAL IGNITION OF ENGINE. SEVERE PERSONAL INJURY MAY OCCUR.

IMPORTANT: Read Honda or Kubota Emission Warranty Statement and Engine Manual before operating or performing maintenance.

3.5 FUEL FILTER

Clean fuel filter pot on Kubota engine to prevent dirt intrusion. Remove the Honda control cover and inspect fuel filter, replace if water or dirt sediment is found. In-line filter should be replaced at scheduled maintenance.

3.6 FUEL TANK

Drain and flush the fuel tank yearly.

3. MAINTENANCE

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

3.7 FUEL LINES

Inspect fuel line condition and clamps weekly. Replace fuel lines every 2 years.

3.8 ENGINE OIL AND FILTER

- Replace oil at 20 hours, then change oil every 100 hours. Change the oil filter every 200 hours.
- Remove the oil filler cap, drain bolt or cap (and oil filter when required). Drain oil into a suitable container.
- Clean and install the drain bolt or cap, tighten securely. When required install new oil filter, lightly oil filter seal.
- Fill with the recommended oil, fill to the upper limit mark on the dipstick, and tighten the oil filler cap securely.
- Run engine for 2 – 3 minutes, stop engine and check oil level and check for leaks.

NOTICE:

- DO NOT overfill engine oil reservoir. It may cause erratic engine operation.
- Please dispose of used motor oil and filter in a manner that does not harm the environment.

Under heavy loads, change engine oil and filter more frequently.

3.9 AIR CLEANER

Foam Pre-cleaner: Clean in warm soapy water, rinse and dry thoroughly. Apply oil to the foam and squeeze out excess oil. The engine will smoke if too much oil is left in the foam.

Paper Element: Tap the element lightly on a hard surface to remove excess dirt or blow pressurized air (30 psi max.) through the filter from the air cleaner cover side. Do not brush the dirt off.

On diesel air cleaner, open evacuator valve once a week to rid air cleaner of large particles of dust and dirt.

Replace elements if damaged or excessively dirty.

3.10 SPARK PLUGS (Honda only)

Recommended spark plug:

BPR6ES (NGK)

W20EPR-U (NIPPONDENSO)

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

Clean and replace at scheduled maintenance. Clean engine before removing spark plugs. Visually inspect the spark plug, discard if insulator or tip is damaged. Check that the spark plug washer is in good condition. If spark plug is to be reused, clean with a wire brush and set plug gap .028 - .031 in (.70 - .80mm). Thread the spark plug in by hand to prevent cross threading. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.

- If installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer.
- If reinstalling a used spark plug, tighten 1/8 – 1/4 turn after the spark plug seats to compress the washer.

NOTICE:

- The spark plug must be securely tightened. An improperly tightened spark plug can become very hot and may cause engine damage.
- Use only the recommended spark plug or equivalent. A spark plug that has an improper heat range may cause engine damage.

3.11 ENGINE RPM

Start the engine and allow it to warm up to normal operating temperature, check the idle speed $1,400 \pm 100$, and adjust idle stop screw as required on Honda. For Kubota, check idle speed at 1200 ± 50 .

3. MAINTENANCE

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Check the full speed, Honda and Kubota 3,400 +/- 100 and adjust full speed stop screw as required.

Notice the idle and full speed RPM setting should not be modified or eccentric system may be damaged. See Eccentric for proper operating speed.

3.12 GAS AIR-COOLING SYSTEM

The machine should be cleaned at scheduled maintenance. This should include cleaning the air inlet screens and the engine cooling fins. Wash machine with warm soapy water, rinse off mud and dirt with water, and use pressurized air (30-psi max.) to blow dirt and debris from engine.

3.13 CHECKING COOLANT LEVEL/ ADDING COOLANT

The Kubota diesel engine is equipped with a radiator and reserve tank. Check coolant level daily. Level should be between the “full” and “low” marks on the reserve tank. When coolant level drops due to evaporation, add water only up to the “full” level.

3.14 CHANGING COOLANT/ CHECKING RADIATOR HOSES & CLAMPS

To drain coolant, always open both drain cocks and simultaneously open the radiator cap as well. Remove overflow pipe to drain reserve tank. The radiator capacity is approximately .82 gallons (3.1 liters). Use clean, fresh water and 50% anti-freeze to fill radiator. Check radiator hoses and clamps every 200 hours for leaks or cracks. Replace every 2 years or earlier if hoses are swollen or cracked.

WARNING

ENGINE IS EQUIPPED WITH HIGH TEMPERATURE SHUT DOWN. ROLLER WILL SHUT DOWN IF RADIATOR TEMPERATURE EXCEEDS 226° F (108° C)

WARNING

TO AVOID PERSONAL INJURY:

- **DO NOT STOP ENGINE SUDDENLY, STOP IT AFTER ABOUT 5 MINUTES OF UNLOADED IDLING.**
- **WORK ONLY AFTER LETTING THE ENGINE AND RADIATOR COOL OFF COMPLETELY (MORE THAN 30 MINUTES AFTER IT HAS BEEN STOPPED).**
- **DO NOT REMOVE THE RADIATOR CAP WHILE COOLANT IS HOT. WHEN COOL TO THE TOUCH, ROTATE CAP TO THE FIRST STOP TO ALLOW EXCESS PRESSURE TO ESCAPE. THEN REMOVE CAP COMPLETELY.**
- **IF OVERHEATING SHOULD OCCUR, STEAM MAY GUSH OUT FROM THE RADIATOR OR RESERVE TANK; SEVER BURNS COULD RESULT.**
- **WHEN USING ANTI-FREEZE, PUT ON SOME PROTECTION SUCH AS RUBBER GLOVES.**
- **IF YOU SHOULD DRINK ANTI-FREEZE, THROW UP AT ONCE AND TAKE MEDICAL ATTENTION.**
- **WHEN ANTI-FREEZE COMES IN CONTACT WITH THE SKIN OR CLOTHING, WASH IT OFF IMMEDIATELY.**
- **DO NOT MIX DIFFERENT TYPES OF ANTI-FREEZE.**
- **KEEP FIRE AND CHILDREN AWAY FROM ANTI-FREEZE.**
- **BE MINDFUL OF THE ENVIRONMENT AND ECOLOGY. BEFORE DRAINING ANY FLUIDS, FIND OUT THE CORRECT**

3. MAINTENANCE

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WAY OF DISPOSING BY CHECKING WITH LOCAL CODES.

- **ALSO, OBSERVE THE RELEVANT ENVIRONMENTAL PROTECTION REGULATIONS WHEN DISPOSING OF OIL, FUEL, COOLANT, BRAKE FLUID, FILTERS AND BATTERIES.**

3.15 VALVE CLEARANCE

Due to special tool requirements and training, an authorized engine dealer should perform this service unless the owner has the proper tools and proper shop manuals.

3.16 HYDRAULIC OIL

WARNING

ESCAPING HYDRAULIC FLUID UNDER PRESSURE CAN HAVE SUFFICIENT FORCE TO PENETRATE THE SKIN, CAUSING SERIOUS PERSONAL INJURY.

HYDRAULIC FLUID ESCAPING UNDER PRESSURE FROM A VERY SMALL HOLE CAN BE ALMOST INVISIBLE. USE A PIECE OF CARDBOARD OR WOOD TO SEARCH FOR POSSIBLE LEAKS. NEVER USE YOUR HANDS TO DETECT PRESSURE LEAKS. IF YOU ARE INJURED BY ESCAPING HYDRAULIC FLUIDS, SEE A DOCTOR AT ONCE. SERIOUS INFECTION OR REACTION CAN DEVELOP IF PROPER MEDICAL TREATMENT IS NOT ADMINISTERED IMMEDIATELY.

Do not mix hydraulic oils. Check oil level daily, replace hydraulic oil every 800 hours.

- Remove return filter cap slowly.
- Remove drain plug and drain into suitable container.
- Clean drain plug, apply thread sealant to the plug, install and tighten.

- Add fresh hydraulic oil until level is visible in the sight gauge. A 1/4 – 1/2 air bubble will be seen at the top of the gauge.
- Install and tighten return filter cap.
- Idle engine 2-3 minutes, stop engine and check for proper hydraulic oil level and leaks.

CAUTION: If hoses, filter and/or hydraulic components were changed, start the engine and purge the air from the system prior to checking the oil level. To do this, idle the engine for three minutes with control lever in neutral position. Slowly engage forward to reverse. This allows fluid to replace air introduced with the filter change. If this procedure is not followed, partial or complete failure of the pump may result.

NOTE: When changing the hydraulic oil, it is recommended to also change the hydraulic oil filter.

3.17 HYDRAULIC OIL FILTER

Replace every 100 hours or when clog indicator needle is between 2 and 5. Never let the filter be completely clogged.

CAUTION: Never overfill the hydraulic tank. Use the sight gage located on the hydraulic tank. A 1/4-1/2" air bubble will be seen at the top of the gauge showing the fluid level. Before disconnecting any hydraulic lines, be sure engine is shut off and relieve all pressure. Before applying pressure to system, be sure all connections are tight and lines, fittings and hoses are not damaged.

3.18 HYDRAULIC BREATHING CAP

Replace every 800 hours or yearly. To replace breather, pry it out with a flat head screw driver. To install breather, push it in with fingers.

3.19 GREASE FITTINGS

Use a grease gun to grease fittings. Remove the blue protection cap off fitting before greasing.

- Hinge (4) fittings
- Left rear bearing (1) fitting

3. MAINTENANCE

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3.20 FORWARD/REVERSE/NEUTRAL ADJUSTMENT

The forward/reverse lever should be aligned with “NEUTRAL” on the console when the roller is not moving forward or backward with the engine running. If the lever is not aligned, adjust it as follows:

- Shut off the engine with the forward/reverse lever left in operating neutral position, the position when the roller moves neither forward nor reverse. Apply the parking brake.
- Open the engine hood of the machine.
- Disconnect the linkage from the hydrostatic transmission from the clevis. Do this by removing the lock nut from the clevis pin and removing the pin.
- Now screw clevis in or out to adjust.
- Secure the clevis to the transmission lever with the clevis pin, secure with the lock nut and tighten clevis nut.

Linkage play must be minimal at both connections. Replace clevis and/or link if required.

3.21 NEUTRAL INTERLOCK

The purpose of the neutral interlock switch is to prevent engine starting when the forward/reverse lever is not in the neutral position.

- Disconnect battery cables from battery.
- a. Disconnect (2) wires from neutral interlock switch and connect it to leads from an ohmmeter.
- b. When switch is actuated, ohmmeter should read zero resistance.
- Adjustments must be made at transmission.
- Disconnect ohmmeter and reconnect interlock wires and battery cables.

3.22 CONTROL CABLES

Forward/reverse, brake, throttle, and choke. Lubricate all cable ends every 200 hours with penetrating oil.

WARNING

DO NOT ADJUST THE CONTROL CABLE WITH THE POWER ON OR THE ENGINE RUNNING. SERIOUS INJURY OR DEATH COULD RESULT.

A GRADUAL OR SUDDEN INCREASE IN THE NO-LOAD FRICTION (CABLE DISCONNECT AT BOTH ENDS) OF A CONTROL CABLE IS AN INDICATION OF A PENDING OR PRESENT PERFORMANCE PROBLEM. THE CONTROL CABLE SHOULD BE REPLACED, OTHERWISE SERIOUS INJURY OR DEATH COULD RESULT.

A GRADUAL OR SUDDEN DECREASE IN THE USABLE STROKE IS AN INDICATION OF A PENDING OR PRESENT PERFORMANCE PROBLEM.

THE CONTROL CABLE SHOULD BE REPLACED, OTHERWISE SERIOUS INJURY OR DEATH COULD RESULT. CONTROL CABLES WHICH HAVE MOISTURE INSIDE OF THEM AND/OR HAVE FROZEN SHOULD BE REPLACED. DO NOT APPLY HEAT TO THAW OR DRY CONTROL CABLES.

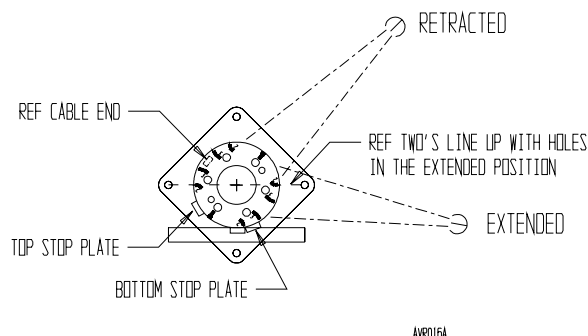
3.23 THROTTLE LEVER (Honda only)

Throttle should operate smoothly and hold engine at full RPM. Throttle should require 10 lbs. to operate. To adjust tension, loctite locknut and tighten until 10 lbs. is required to move from full to idle position.

3. MAINTENANCE

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Refer to illustration below for assembly information travel 1 1/8".



3.24 PARKING BRAKE

It should take a force of 25-35 pounds, applied at the end of the brake lever, to apply the brake lever. The brake should prevent the roller from moving when applied. Turn knob on brake lever to adjust. Clockwise will increase the force, counterclockwise will decrease it.

3.25 WATER TANK

The water tank is polyethylene to prevent corrosion. The water tank holds 40 US gallons. Dirty water will clog the sprinkler bars. If the water tank is subject to freezing temperatures, all the water lines and the water tank must be drained by drawing through sprinkler tubes or removing the cover at the rear of the machine to gain access to the water tank, flush and drain plug.

3.26 SPRINKLERS

The sprinkler tube assemblies are PVC to prevent corrosion. The sprinkler tube assemblies are equipped with a clean out plug for cleaning when required.

3.27 SCRAPER MAINTENANCE/ADJUSTMENT

Scrapers must make uniform contact across entire width of drum to ensure even application of water from the sprinkler system. Tension is adjusted by sliding slotted brackets in or away from drum surface.

- Loosen the 2 bolts that hold item to the frame and slide away or towards the drum and retighten.

3.28 ECCENTRICS

When vibratory compaction is necessary, engage eccentrics by actuating eccentric switch. Operator may vary the frequency and therefore the centrifugal force by varying engine RPM. Eccentrics should be turned off whenever the roller is stopped, or stopped to change direction. Do not run the eccentric on any non-yielding surface, such as concrete or aged asphalt.

NOTE: Test vibration with front drum on soft ground. Run engine at full RPM to obtain vib speed 3900 ± 100 —check per below.

To check vibration with a vibrotach, place the vibrotach on the vibrating member surface, record reading when the wire reaches maximum movement. (Vibrotach P/N 37891). Adjust engine RPM to obtain proper eccentric speed.

When checking vibration with a strobe light, place a horizontal line on the vibrating member surface. Check with strobe light-record reading when the line reaches minimum movement.

3.29 ENGINE MOUNTING

Check weekly-tighten all mounting hardware for proper torque, refer to parts illustrations for proper torque.

3.30 HARDWARE

Inspect all hardware for tightness. Refer to parts illustrations for proper torque.

3.31 LOCTITE

Loctite 262 threadlocker is required to prevent hardware from loosening.

Refer to exploded diagrams and parts list for * where loctite is required.

3. MAINTENANCE

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

3.32 BATTERY

3.32.1 Servicing Battery

WARNING

BATTERY GAS CAN EXPLODE. KEEP SPARKS AND FLAMES AWAY FROM BATTERIES. USE A FLASHLIGHT TO CHECK BATTERY ELECTROLYTE LEVEL.

NEVER CHECK BATTERY CHARGE BY PLACING A METAL OBJECT ACROSS THE POSTS. USE A VOLTMETER OR HYDROMETER.

ALWAYS REMOVE GROUNDED NEGATIVE (-) BATTERY CLAMP FIRST AND REPLACE IT LAST.

- On regular batteries, check electrolyte level. Fill each cell to bottom of filler neck with distilled water.
- Keep batteries clean by wiping them with a damp cloth. Keep all connections clean and tight. Remove any corrosion, and wash terminals with a solution of 1 part baking soda and 4 parts water. Tighten all connections securely.

NOTE: Coat battery terminals and connectors with a mixture of petroleum jelly and baking soda to retard corrosion.

- Keep battery fully charged, especially during cold weather. If a battery charger is used, turn charger off before connecting charger to battery(ies). Attach POSITIVE (+) battery post. Then attach NEGATIVE (-) battery charger lead to a good ground.

Once a month, check the battery for proper charge of 12.5 volts. Check for proper fluid level. Use distilled water when adding and run 30 minutes to mix. Clean battery, posts and terminals. Disconnect battery cables before charging to avoid damage to the electrical system.

WARNING

SULFURIC ACID IN BATTERY ELECTROLYTE IS POISONOUS. IT IS STRONG ENOUGH TO BURN SKIN, EAT HOLES IN CLOTHING AND CAUSE BLINDNESS IF SPLASHED INTO EYES.

Avoid the hazard by:

- Filling batteries in a well-ventilated area.
- Wearing eye protection and rubber gloves.
- Avoiding breathing fumes when electrolyte is added.
- Avoiding spilling or dripping electrolyte.
- Use proper jump start procedure.

If you spill acid on yourself:

- Flush your skin with water.
- Apply baking soda or lime to help neutralize the acid.
- Flush your eyes with water for 10 – 15 minutes. Get medical attention immediately.

If acid is swallowed:

- Drink large amounts of water or milk.
- Then drink milk of magnesia, beaten eggs, or vegetable oil.
- Get medical attention immediately.

In freezing weather, run engine at least 30 minutes to assure thorough mixing after adding water to battery.

If necessary to replace battery(ies), replacements must meet or exceed the recommended capabilities. See Technical Data section for battery specifications.

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3.32.2 Battery Installation

WARNING

ALWAYS CONNECT GROUNDED CABLE LAST. CLEAN AND SECURELY CONNECT EACH CABLE TO BATTERY TERMINAL OF THE SAME POLARITY. BATTERY SHOULD BE SECURELY FASTENED WITH PROPERLY INSTALLED HOLD-DOWNS.

3.33 JUMP STARTING

CAUTION: Do not let vehicles touch. Put emergency brake ON. Set both vehicles in PARK (NEUTRAL if manual transmission) and turn ignition and electrical accessories off.

Attach jumper cables in this order:

1. dead positive block to
2. good positive
3. good negative to
4. engine block or frame of dead car. Start GOOD vehicle and let run a few minutes. Then start DEAD VEHICLE. Remove cables in reverse order 4, 3, 2, 1.

3.34 CHARGE SYSTEM

Charge system should be checked every month. With the engine running at full speed voltage should be 13 – 14 volts.

3.35 SWITCH BOX/FUSE

If charge system fails, check the fuse located at the key switch box. If fuse fails frequently, it usually indicates a short circuit or an overload in the electrical system. Refer to wiring diagram and inspect wires.

NOTICE: Electrical system is not designed for field add-on electrical options, do not modify the electrical system. Contact your authorized dealer.

3.36 FUSE

Turn the engine switch OFF and remove the key before checking or replacing fuses to prevent accidental short-circuiting.

To replace fuse pull the old fuse out of the clips with your finger. Push a new fuse into the clips.

NOTICE: Never use a fuse with a different rating from that specified. Serious damage to the electrical system or a fire may result.

3.37 IGNITION SYSTEM

The 18 hp Honda and 20 hp Kubota are equipped with electronic ignition. Checking and replacing the spark plug is the only ignition system maintenance required on the Honda

When cleaning machine, caution should be used around regulator area. Direct spraying of the regulator is not good. (Regulator should be covered or protected if direct spraying will happen). Excessive water pressure may also loosen wire connections or start terminals corroding. After cleaning, all terminals should be dried if wet and connections checked for proper seating.

3.38 STORAGE

- Store the roller on level ground with drums blocked and parking brake on.
- Remove the key. Operations of roller by untrained persons could result in personal injury.
- In freezing climates, drain the water from the water tank, sprinkler tubes and drums.
- During extended storage, drums should be coated with any type of oil or grease to prevent rusting.
- Storage instructions for the engine are stated in the Engine Manual and should be carried out.

3. MAINTENANCE

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3.39 TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Engine will not start	Forward/Reverse lever not in neutral position.	Place lever in neutral position.
	Battery not fully charged.	Charge or replace.
	Loose battery or starter cables.	Check and tighten.
	Ignition fuse blown.	Replace 25A only. (Honda) Replace 30 A only. (Kubota)
	Faulty or improperly adjusted neutral interlock switch.	Make sure neutral switch wires are secured. See neutral interlock adjustment.
	Faulty engine starting circuit.	See Honda or Kubota Manual for troubleshooting.
Engine will not start but cranks over	Low on fuel or oil.	Add fuel and/or oil.
	Fuel filter plugged.	Check fuel filter, replace if necessary.
	Spark plug wire (2) disconnected.	Connect. (Honda)
	Spark plug fouled.	Clean or replace. (Honda)
	No spark at plug.	Check engine ignition system. See Honda manual for troubleshooting.
	No contact at seat switch .	Remain seated. Check contacts. Replace seat switch.
=		
Engine starts but does not keep running	No fuel to carburetor.	Check fuel lines. Drain fuel system.
	Water/dirt in fuel.	Check fuel filter for water accumulation or sediment.
	Choke remains on.	Adjust choke cable. Clean choke linkage.
	Carburetor improperly adjusted.	Adjust as per Honda Shop Manual PN 56238.
	Fuel on pump drawing in air.	Check fuel lines or replace.

3. MAINTENANCE

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

3.39 CONT'D TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Roller will not move forward or reverse	Objects in front of drums.	Remove.
	Loose or broken forward/reverse linkage.	Readjust linkage or replace worn arm linkage.
	Low hydraulic oil.	Check oil level gage. Add if required.
	Faulty hydraulic pump or drive motor.	See section F-11.
Unit lacks power moving forward-but OK in reverse or vice versa	Improperly adjusted forward/reverse linkage.	Adjust linkage so that lever travel is the same in either direction from neutral.
Unit lacks power	Engine not properly warmed up.	Idle before operating to achieve operating temperature.
	Air cleaner restricted.	Clean or replace.
	Low hydraulic oil level.	Add.
	Engine RPM too low.	Check throttle linkage for proper actuation (3400 RPM).
	Plugged hydraulic filter.	Replace.
	Valve Clearance incorrect.	Consult Honda shop manual.
	Dirty fuel filter.	Replace.
	Fuel pump drawing in air.	Check fuel lines or replace.
	Too much oil in crankcase.	Drain and check.
	Faulty hydraulic pump or drive motor.	Test hydraulic pressure for 3000 PSI at full load on drive motors with engine at full RPM. Replace pump if pressure is not in specified range in hydraulic motor drive circuit.

3. MAINTENANCE

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

3.39 CONT'D TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Unit lacks power (cont'd)	Bearings seized up.	Check drums for resistance.
Oil Consumption	Too much oil in crankcase.	Drain.
	Loose oil filter or sending unit.	Tighten.
	Loose bolts.	Tighten.
Blue Smoke	Worn valves.	Replace.
	Worn cylinder & piston rings.	Replace.
	Too much oil in crankcase.	Drain-Fill to proper level.
Overheated	Crankcase oil level low.	Fill to proper level.
	Restricted exhaust.	Clean or replace.
	Cooling fins dirty.	Clean.
Unit will not steer	Cylinder-leaking.	Replace hydraulic cylinder.
	Piston rod bent.	Replace hydraulic cylinder.
	Missing hydraulic cylinder pin.	Replace.
	Kinked or broken hoses.	Replace.
	Low hydraulic fluid.	Add fluid.
	Faulty hydraulic pump.	Check hydraulic steering circuit for max. pressure of 1450 PSI at 3400 engine RPM. Replace or repair by authorized Service Center.

3. MAINTENANCE

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

3.39 CONT'D TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Brakes do not hold properly	Brakes not adjusted.	Adjust by turning knob at end of brake lever, handle or additional adjustment required at linkage.
	Loose or broken brake linkage.	Make sure linkage is secure. Replace if necessary.
	Brakes worn out.	Replace.
Asphalt sticks to roller	Insufficient water supply on drums.	Fill tank & adjust flow. Check & clean sprinkler tubes. Check & clean water tank. Check hoses for kinks or dirt. Urethane scrapers not making contact allowing water to leak past. Adjust or replace if necessary.
	Rusty or scored drums.	Sand/replace.

PN 56237
PN 56238

Manual Honda Owners GX610
Manual Honda Shop GX610

WolfPac 3100/WolfPac 3100R/WolfPac 3100D

3.40 SERVICE RECORD

Model No. _____ Serial No. _____

Service Area		Engine Oil	Hyd Oil	Fuel Filter	Engine Oil Filter	Hyd Oil Filter	Hyd Breather
Date	Hours	100 hrs	800 hrs	100 hrs	200 hrs	100 hrs	800 hrs

[illegible]

4. EXPLODED VIEWS WITH PARTS

4. PARTS LIST

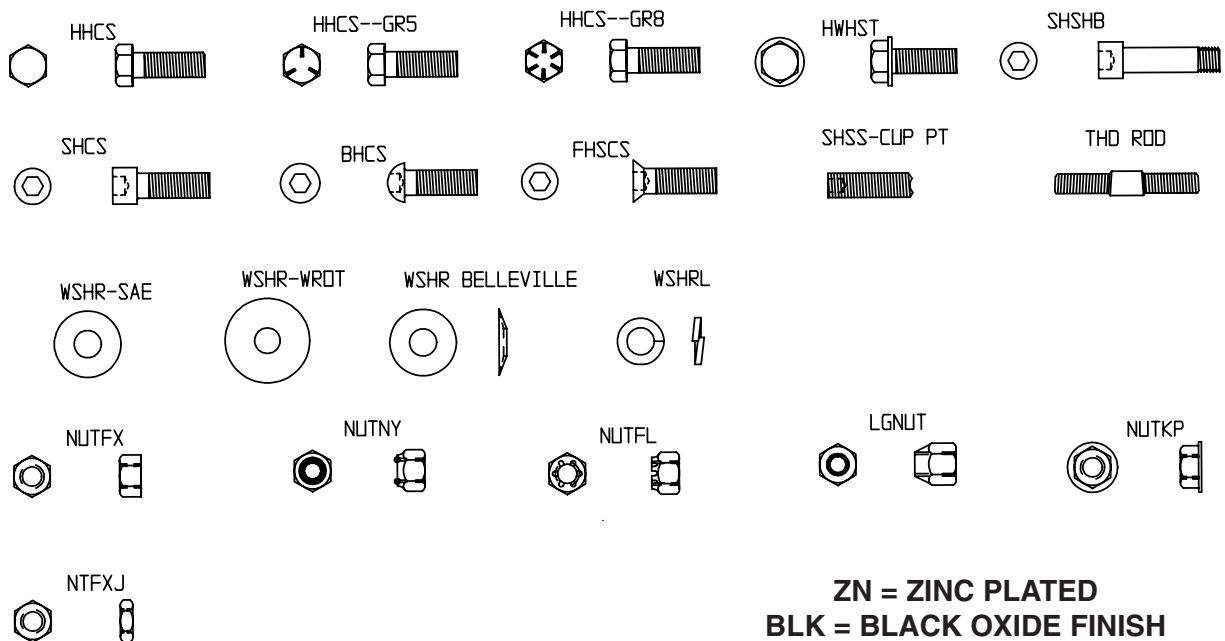
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4. PARTS LIST

Exploded Views with Parts

4.1 HARDWARE KEY



4. PARTS LIST

4.2 Torque Charts

4.2 TORQUE GUIDELINES

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

SAE GRADE 5 Coarse Thread, Zinc-Plated		
SIZE	TORQUE	
	ft. lbs.	Nm
1/4 - 20 (.250)	6	8
5/16 - 18 (.3125)	13	18
3/8 - 16 (.375)	23	31
7/16 - 14 (.4375)	37	50
1/2 - 13 (.500)	57	77
9/16 - 12 (.5625)	82	111
5/8 - 11 (.625)	112	152
3/4 - 10 (.750)	200	271
7/8 - 9 (.875)	322	436.5
1 - 8 (1.000)	483	655

SAE GRADE 8 Coarse Thread, Zinc-Plated		
SIZE	TORQUE	
	ft. lbs.	Nm
1/4 - 20 (.250)	9	12
5/16 - 18 (.3125)	18	24
3/8 - 16 (.375)	33	45
7/16 - 14 (.4375)	52	70
1/2 - 13 (.500)	80	108
9/16 - 12 (.5625)	115	156
5/8 - 11 (.625)	159	215
3/4 - 10 (.750)	282	382
7/8 - 9 (.875)	454	615
1 - 8 (1.000)	682	925

SAE GRADE 5 Fine Thread, Zinc-Plated		
SIZE	TORQUE	
	ft. lbs.	Nm
1/4 - 28 (.250)	7	10
5/16 - 24 (.3125)	14	19
3/8 - 24 (.375)	26	35
7/16 - 20 (.4375)	41	56
1/2 - 20 (.500)	64	87
9/16 - 18 (.5625)	91	123
5/8 - 18 (.625)	128	173
3/4 - 16 (.750)	223	302
7/8 - 14 (.875)	355	481
1 - 12 (1.000)	529	717
1 - 14 (1.000)	541	733

SAE GRADE 8 Fine Thread, Zinc-Plated		
SIZE	TORQUE	
	ft. lbs.	Nm
1/4 - 28 (.250)	10	14
5/16 - 24 (.3125)	20	27
3/8 - 24 (.375)	37	50
7/16 - 20 (.4375)	58	79
1/2 - 20 (.500)	90	122
9/16 - 18 (.5625)	129	175
5/8 - 18 (.625)	180	244
3/4 - 16 (.750)	315	427
7/8 - 9 (.875)	501	679
1 - 12 (1.000)	746	1011
1 - 14 (1.000)	764	1036

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4. PARTS LIST

4.2 Torque Charts

Property Class 8.8

ZINC-PLATED

SIZE	Coarse Thread		Fine Thread	
	Nm	ft. lbs.	Nm	ft. lbs.
M6	9.9	7	10	7
M8	24	18	25	18
M10	48	35	49	36
M12	83	61	88	65
M14	132	97	140	103
M16	200	148	210	155
M20	390	288	425	313
M24	675	498	720	531

Property Class 10.9

ZINC-PLATED

SIZE	Coarse Thread		Fine Thread	
	Nm	ft. lbs.	Nm	ft. lbs.
M6	14	10	14	10
M8	34	25	35	26
M10	67	49	68	50
M12	117	86	125	92
M14	185	136	192	142
M16	285	210	295	218
M20	550	406	600	443
M24	950	701	1000	738

Property Class 12.9

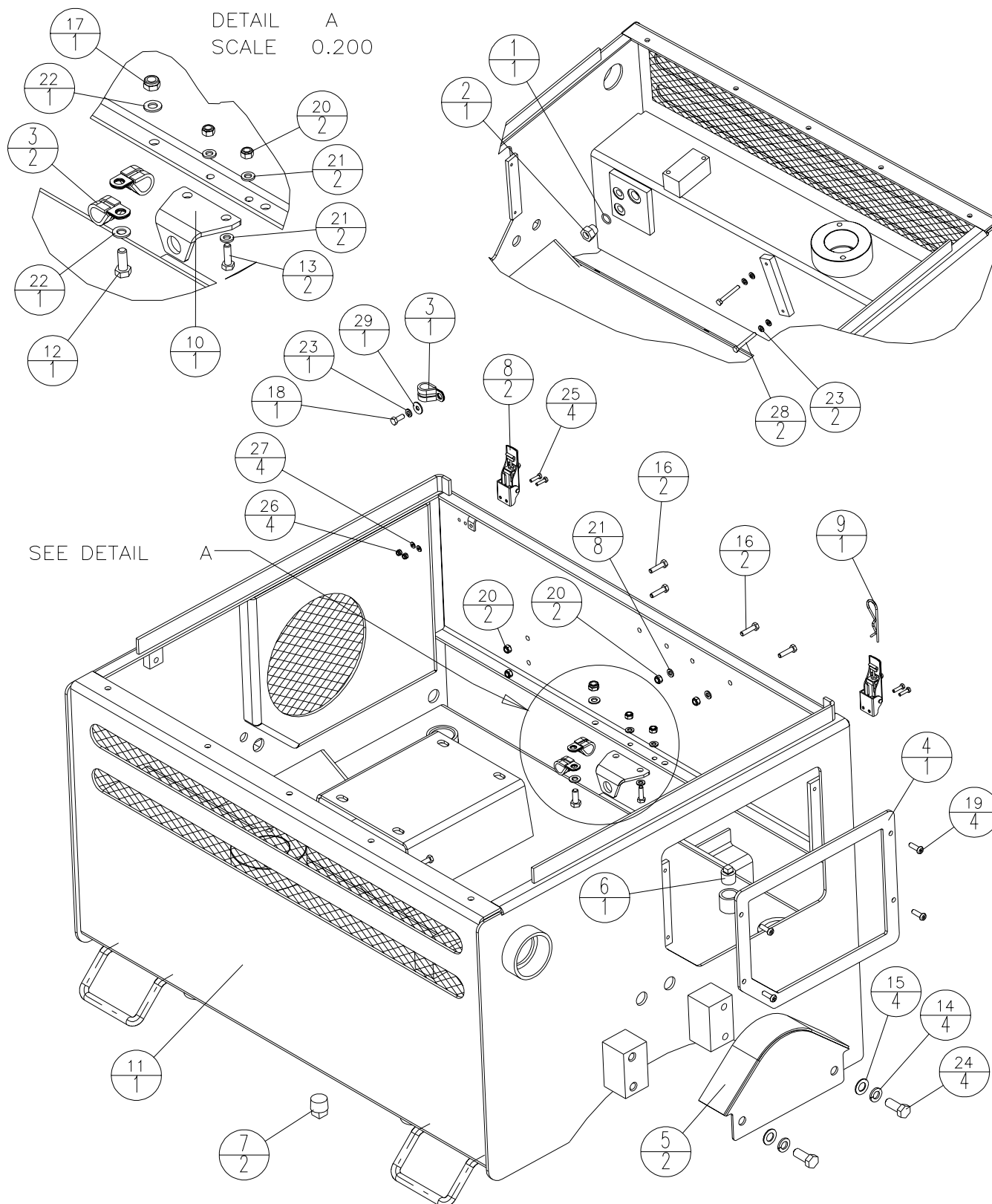
ZINC-PLATED

SIZE	Coarse Thread		Fine Thread	
	Nm	ft. lbs.	Nm	ft. lbs.
M6	16.5	12	16.5	12
M8	40	30	42	31
M10	81	60	82	60
M12	140	103	150	111
M14	220	162	235	173
M16	340	251	350	258
M20	660	487	720	531
M24	1140	841	1200	885

Conversion Factor: 1 ft. lb. = 1.3558 Nm

4. PARTS LIST

4.3 Front Frame WP3100, WP3100R



4. PARTS LIST

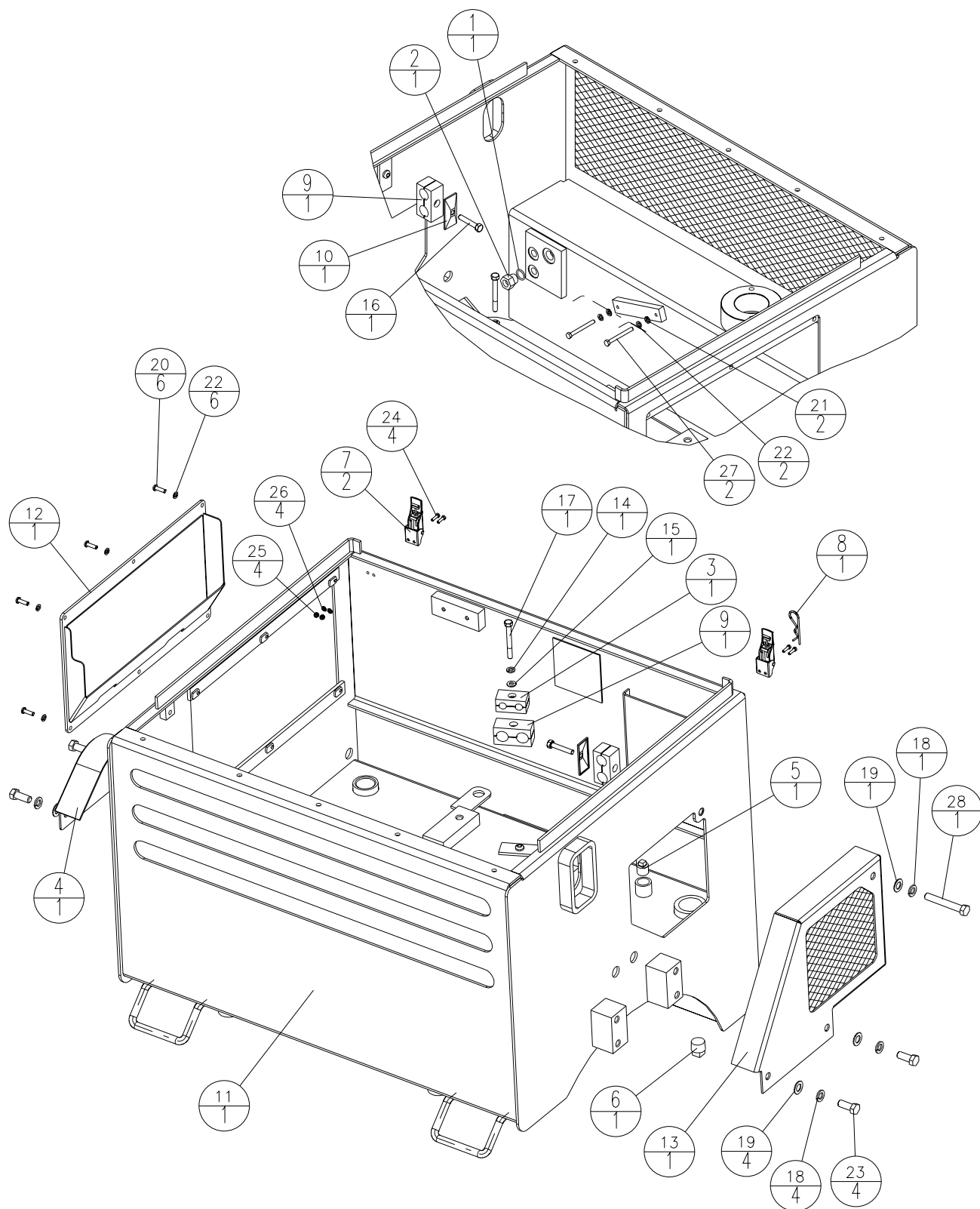
4.3 Front Frame WP3100, WP3100R

ITEM	PART NO.	DESCRIPTION	QTY
1	32299	O-RING 5/8 ID X 3/32 DIA	1
2	32300	GAGE SIGHT OIL	1
3	35448	CLAMP 5/8 RUBBER LOOP	3
4	43608-2	PANEL WELD FRONT LH	1
5	43668-2	WELD SIDE COVER	2
6	46107	PLUG 1/2NPT SQ HD BLK	1
7	46774	PLUG 3/4 NPT MAGNETIC SQ HD	2
8	47373	LATCH DRAW LOCKABLE	2
9	47381	HAIRPIN 3/8-3/4 .093 ZN	1
10	50119-2	BRACKET CABLE	1
11	50121-2	WELD FRAME FRONT	1
12	80406	HHCS M8-1.25 X 20 8.8 ZN	1
13	80758	HHCS M6-1 X 20 8.8 ZN	2
14	80805	WSHRL M12 SPLIT ZN	4
15	80807	WSHR FLAT M12 X 24 ZN	4
16	80811	HHCS M6-1 X 25 8.8 ZN	4
17	80817	NUTNY M8-1.25 ZN	1
18*	80836	HHCS M6-1 X 16 8.8 ZN	1
19*	80847	BHSCS M6-1 X 20 10.9 BLK	4
20	80851	NUTNY M6-1 ZN	6
21	80856	WSHR FLAT M6 X 12 ZN	12
22	80857	WSHR FLAT M8 X 16 ZN	2
23	80860	WSHRL M6 SPLIT ZN	3
24*	80873	HHCS M12-1.75 X 30 10.9 ZN	4
25	80877	HHCS M4-.7 X 16 8.8 ZN	4
26	80878	NUTNY M4-0.7 ZN	4
27	80880	WSHR FLAT M4 X 9 ZN	4
28*	80881	HHCS M6-1 X 50 8.8 ZN	2
29	81181	WSHR FLAT M6 X 18 ZN	1

* LOCTITE 262

4. PARTS LIST

4.4 Front Frame WP3100D



4. PARTS LIST

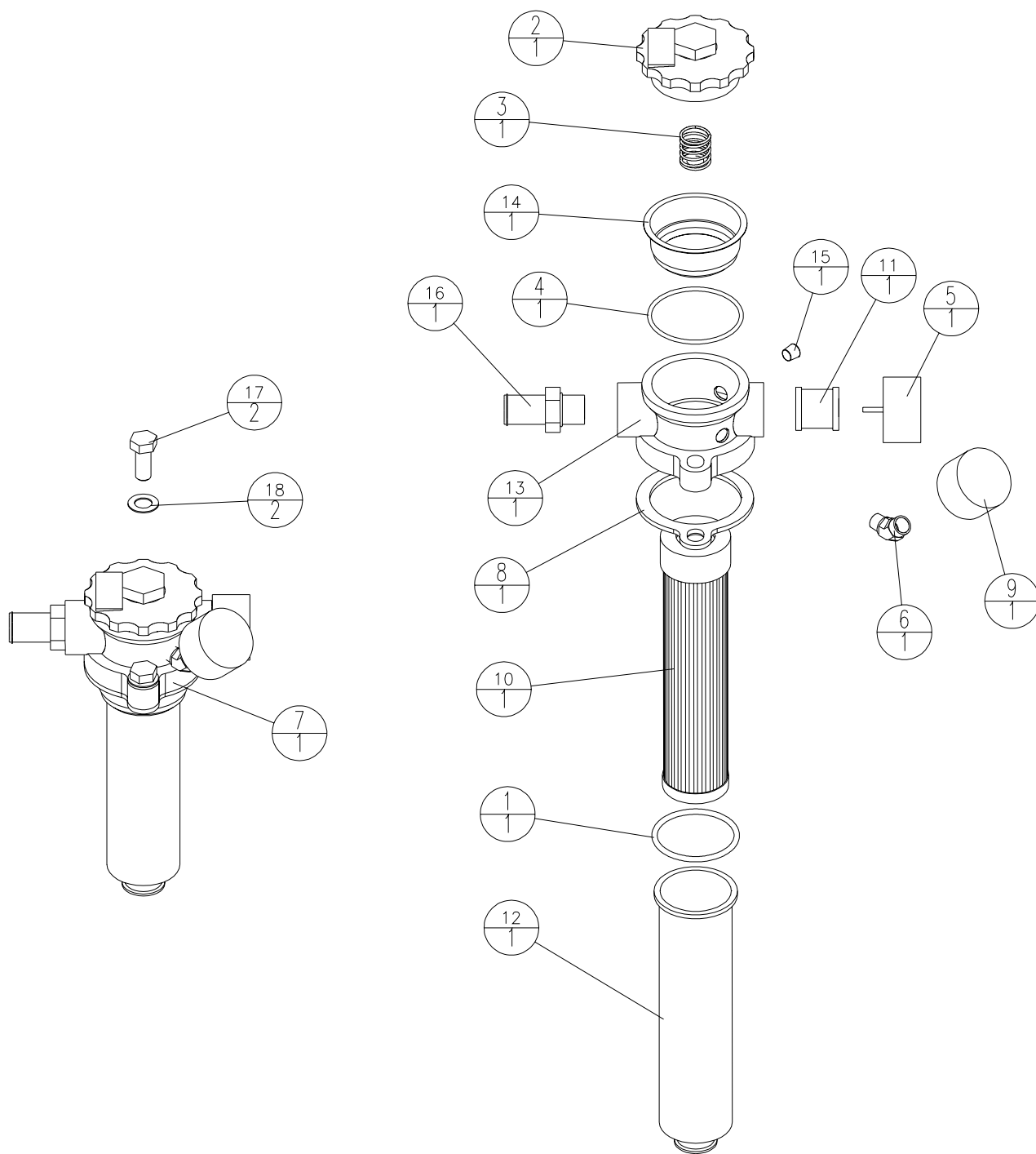
4.4 Front Frame WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	32299	O-RING 5/8 ID X 3/32 DIA	1
2	32300	GAGE SIGHT OIL	1
3	37529	CLAMP TWIN .500 IN TUBE	1
4	43668-2	WELD SIDE COVER	1
5	46107	PLUG 1/2NPT SQ HD BLK	1
6	46774	PLUG 3/4 NPT MAGNETIC SQ HD	1
7	47373	LATCH DRAW LOCKABLE	2
8	47381	HAIRPIN 3/8-3/4 .093 ZN	1
9	47455	CLAMP SPLIT DUAL HOSE 21.3 21.3	2
10	47456	COVER PLATE DUAL HOSE	1
11	50325-2	WELD FRAME FRONT WP3100D	1
12	50338-2	WELD COVER INLET RADIATOR WP3100D	1
13	50342-2	WELD COVER PUMP WP3100D	1
14	80086	WSHRL 5/16 MED SPLIT ZN	1
15	80348	WSHR WROT 5/16 ZN	1
16*	80475	HHCS 5/16-18 X 1 3/4 GR5 ZN	1
17*	80480	HHCS 5/16-18 X 2-3/4 GR5 ZN	1
18	80805	WSHRL M12 SPLIT ZN	5
19	80807	WSHR FLAT M12 X 24 ZN	5
20*	80847	BHSCS M6-1 X 20 10.9 BLK	6
21	80856	WSHR FLAT M6 X 12 ZN	2
22	80860	WSHRL M6 SPLIT ZN	8
23*	80873	HHCS M12-1.75 X 30 10.9 ZN	4
24	80877	HHCS M4-.7 X 16 8.8 ZN	4
25	80878	NUTNY M4-0.7 ZN	4
26	80880	WSHR FLAT M4 X 9 ZN	4
27*	81111	HHCS M6-1 X 60 8.8 ZN	2
28*	81198	HHCS M12-1.75 X 80 8.8 ZN	1

* LOCTITE 262

4. PARTS LIST

4.5 In-Tank Filter WP3100, WP3100R



4. PARTS LIST

4.5 In-Tank Filter WP3100, WP3100R

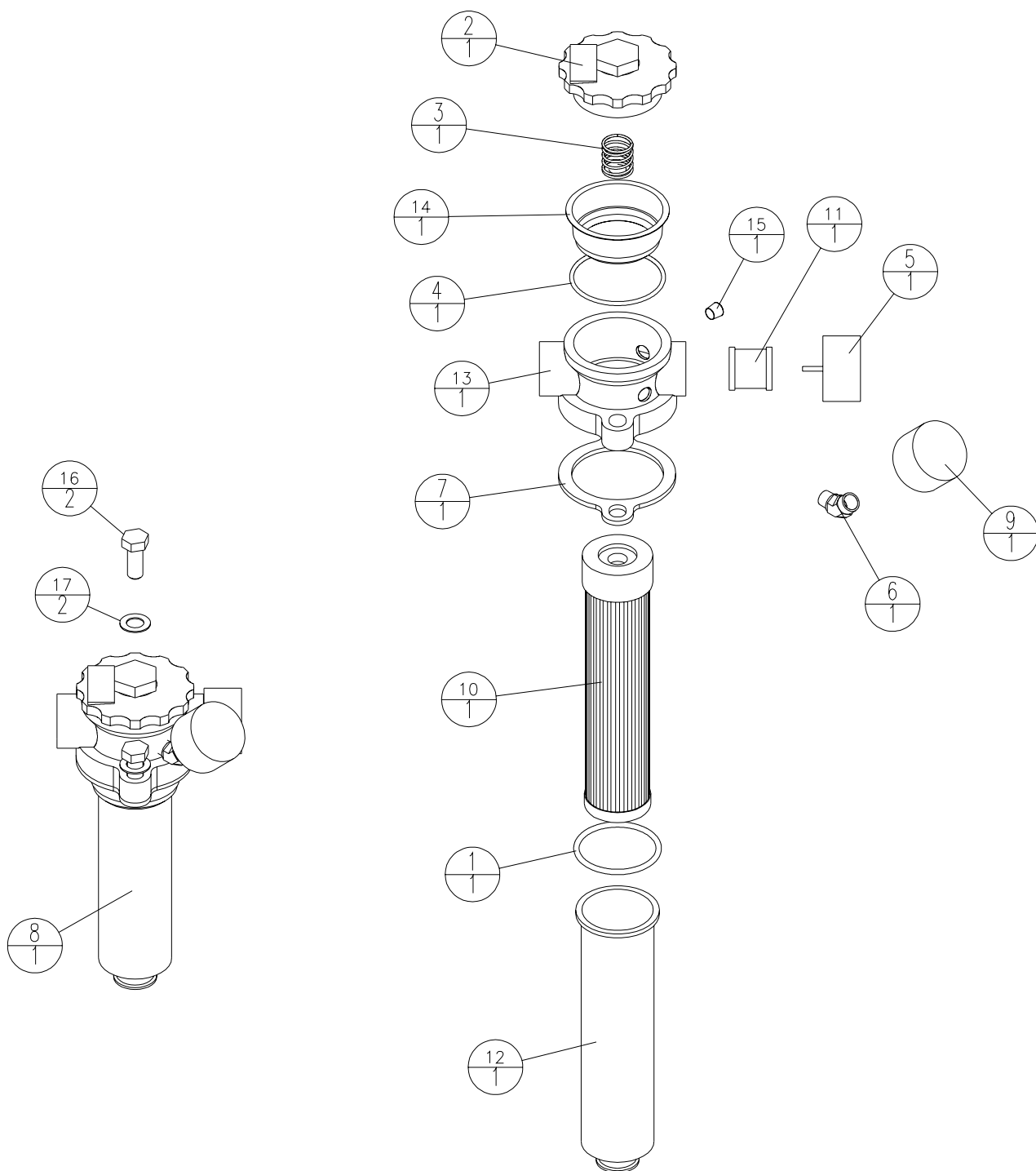
ITEM	PART NO.	DESCRIPTION	QTY
1+	32457	O-RING BOWL HYD FILTER	1
2+	32458	COVER ONLY FILTER	1
3+	32459	SPRING HYD FILTER	1
4+	32460	O-RING COVER HYD FILTER	1
5+	32461	COVER BREATHER	1
6+	32462	FTG EL 45 1/8MPT X 1/8FPT	1
7	32463	KIT FILTER IN-TANK WP3100	1
8+	32464	GASKET HYD FILTER	1
9+	36987	GAUGE HYD FILTER INDICATOR	1
10+	36988	ELEMENT HYD FILTER 10M	1
11+	36989	ELEMENT AIR BREATHER 10M	1
12+	36997	BOWL FILTER	1
13+	36998	HOUSING HEAD FILTER	1
14+	36999	GUARD SPLASH FILTER	1
15+	46011	PLUG 1/8 NPT HEX SOC BLK	1
16+	47580	FTG HYD 3/4OR X 3/4 HOSE	1
17*	80618	HHCS M10 -1.25 X 25 8.8 ZN	2
18	80876	WSHR M10 CURVED ZN	2

* LOCTITE

+ INCLUDED WITH 32463 KIT FILTER IN-TANK WP3100

4. PARTS LIST

4.6 In-Tank Filter WP3100D



4. PARTS LIST

4.6 In-Tank Filter WP3100D

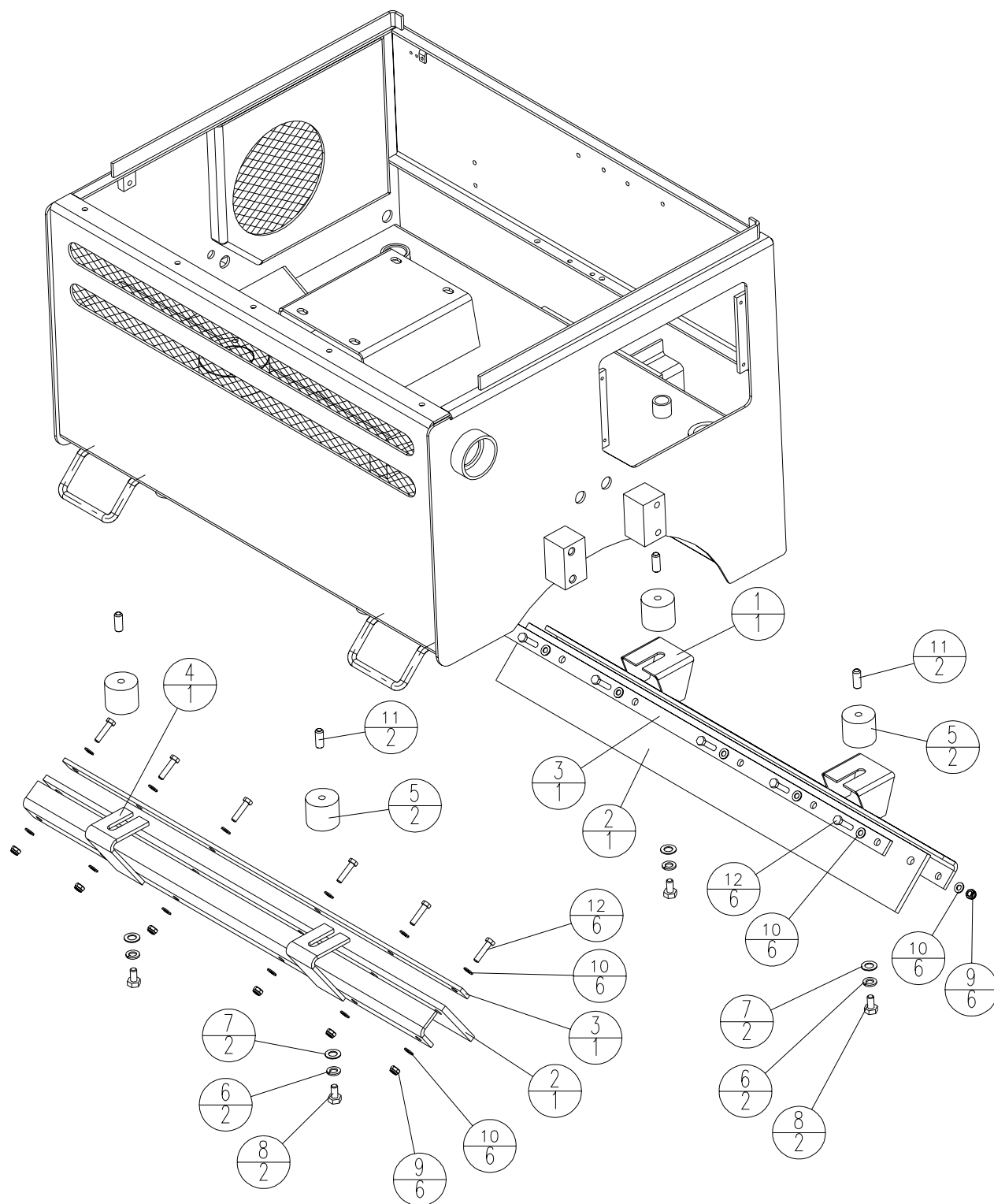
ITEM	PART NO.	DESCRIPTION	QTY
1+	32457	O-RING BOWL HYD FILTER	1
2+	32458	COVER ONLY FILTER	1
3+	32459	SPRING HYD FILTER	1
4+	32460	O-RING COVER HYD FILTER	1
5+	32461	COVER BREATHER	1
6+	32462	FTG EL 45 1/8MPT X 1/8FPT	1
7+	32464	GASKET HYD FILTER	1
8	32528	KIT FILTER IN-TANK WP3100D	1
9+	36987	GAUGE HYD FILTER INDICATOR	1
10+	36988	ELEMENT HYD FILTER 10M	1
11+	36989	ELEMENT AIR BREATHER 10M	1
12+	36997	BOWL FILTER	1
13+	36998	HOUSING HEAD FILTER	1
14+	36999	GUARD SPLASH FILTER	1
15+	46011	PLUG 1/8 NPT HEX SOC BLK	1
16*	80618	HHCS M10 -1.25 X 25 8.8 ZN	2
17	80876	WSHR M10 CURVED ZN	2

* LOCTITE 262

+ INCLUDED WITH KIT 32528 KIT FILTER IN-TANK WP3100D

4. PARTS LIST

4.7 Front Scrapers WP3100, WP3100R, WP3100D



4. PARTS LIST

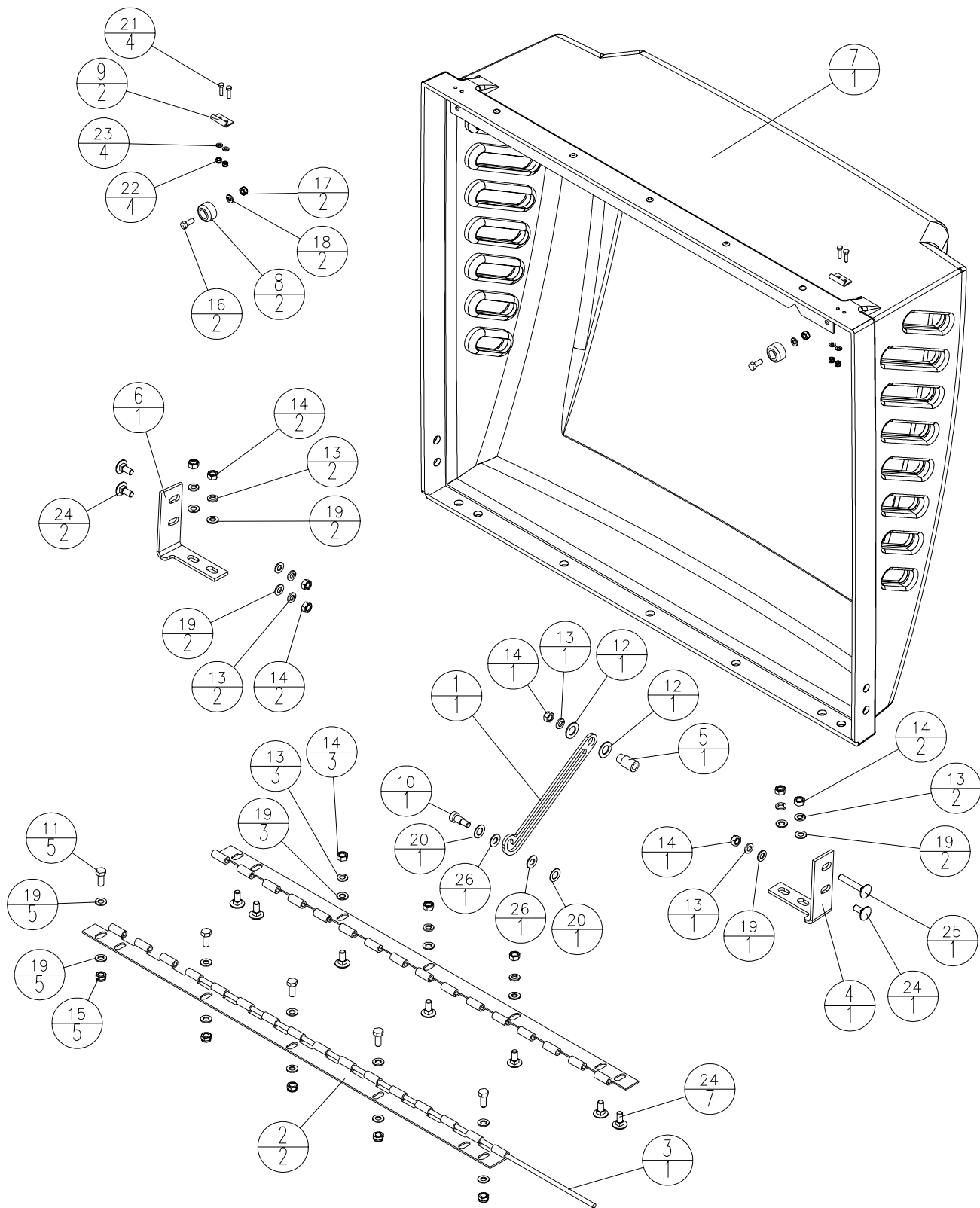
4.7 Front Scrapers WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	43587-2	WELD SCRAPER INNER	1
2	43591	SCRAPER 3/8X4X35.50	2
3	43596-2	BACKER SCRAPER	2
4	43597-2	WELD SCRAPER OUTER	1
5	47382	SHOCKMOUNT	4
6	80805	WSHRL M12 SPLIT ZN	4
7	80807	WSHR FLAT M12 X 24 ZN	4
8*	80808	HHCS M12-1.75 x 20 8.8 ZN	4
9	80817	NUTNY M8-1.25 ZN	12
10	80857	WSHR FLAT M8 X 16 ZN	24
11*	80874	SHSS M12-1.75 X 30 45H ZN	4
12	80892	HHCS M8-1.25 X 35 8.8 ZN	12

* LOCTITE 262

4. PARTS LIST

4.8 Hood WP3100, WP3100R, WP3100D



4. PARTS LIST

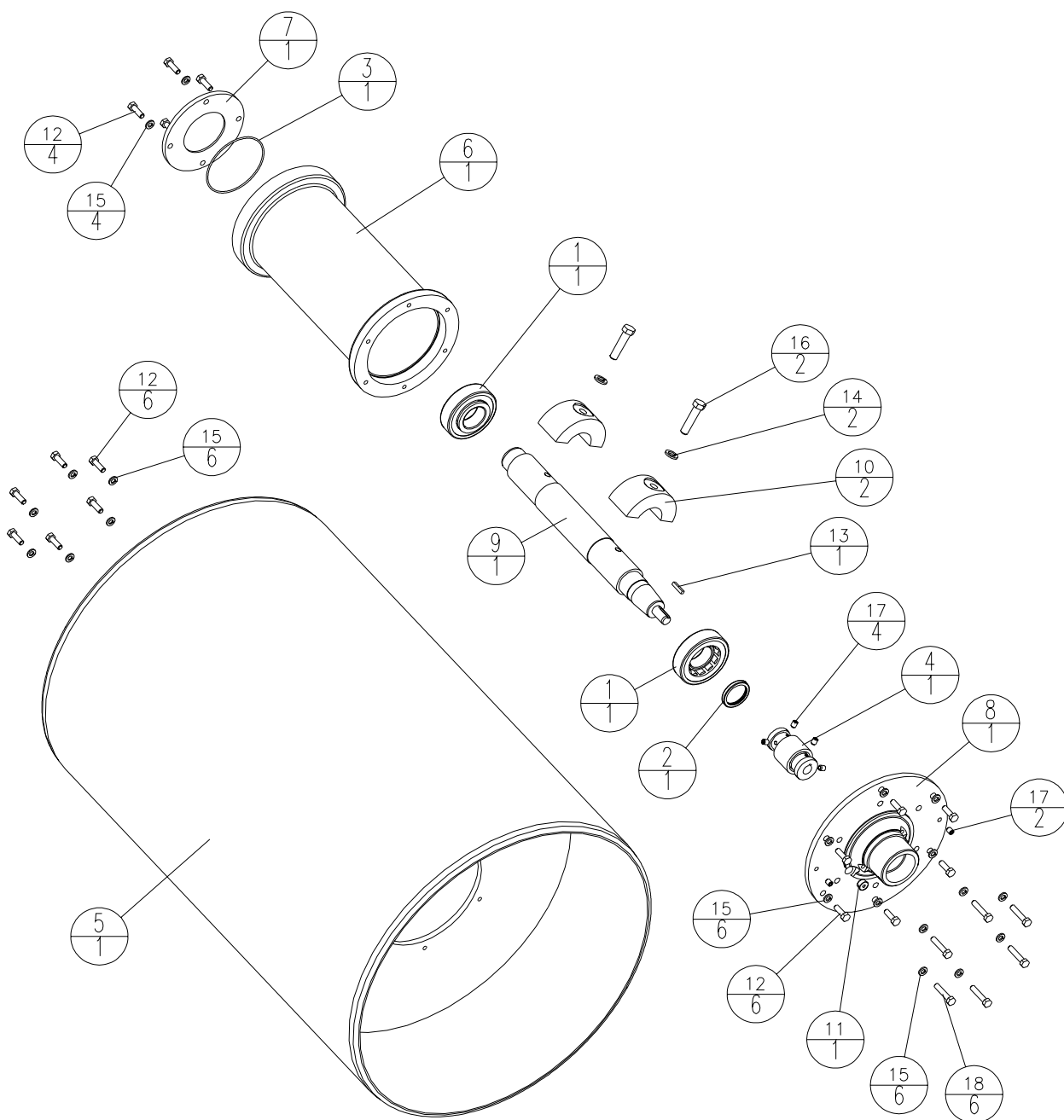
4.8 Hood WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	39700-2	LINK GUIDE HOOD	1
2	39701-2	HINGE LEAF 1 X 32	2
3	39702	PIN SST 1/4 OD X 31.75 LG	1
4	39708-2	BRACKET HOOD PIVOT RH	1
5	39736-2	SPACER HOOD LINK	1
6	39755-2	BRACKET HOOD PIVOT LH	1
7	39757	HOOD PLASTIC ASSY.	1
8	41016	BUMPER RBR 1 X 9/16	2
9	47374	KEEPER DRAW LOCKABLE	2
10*	80285	SHSHB 3/8 x 1/2 BLK	1
11	80406	HHCS M8-1.25 X 20 8.8 ZN	5
12	80807	WSHR FLAT M12 X 24 ZN	2
13	80812	WSHRL M8 SPLIT ZN	11
14	80814	NUTFX M8-1.25 ZN	11
15	80817	NUTNY M8-1.25 ZN	5
16	80836	HHCS M6-1 X 16 8.8 ZN	2
17	80851	NUTNY M6-1 ZN	2
18	80856	WSHR FLAT M6 X 12 ZN	2
19	80857	WSHR FLAT M8 X 16 ZN	20
20	80876	WSHR M10 CURVED ZN	2
21	80877	HHCS M4-.7 X 16 8.8 ZN	4
22	80878	NUTNY M4-0.7 ZN	4
23	80880	WSHR FLAT M4 X 9 ZN	4
24	80958	CRBLTM M8-1.25 X 20 ZN	10
25	80959	CRBLTM M8-1.25 X 50 4.6 ZN	1
26	80960	WSHR 3/8IDx3/4ODx.06THK NYLON	2

* LOCTITE 262

4. PARTS LIST

4.9 Front Drum/Eccentric WP3100, WP3100R, WP3100D



4. PARTS LIST

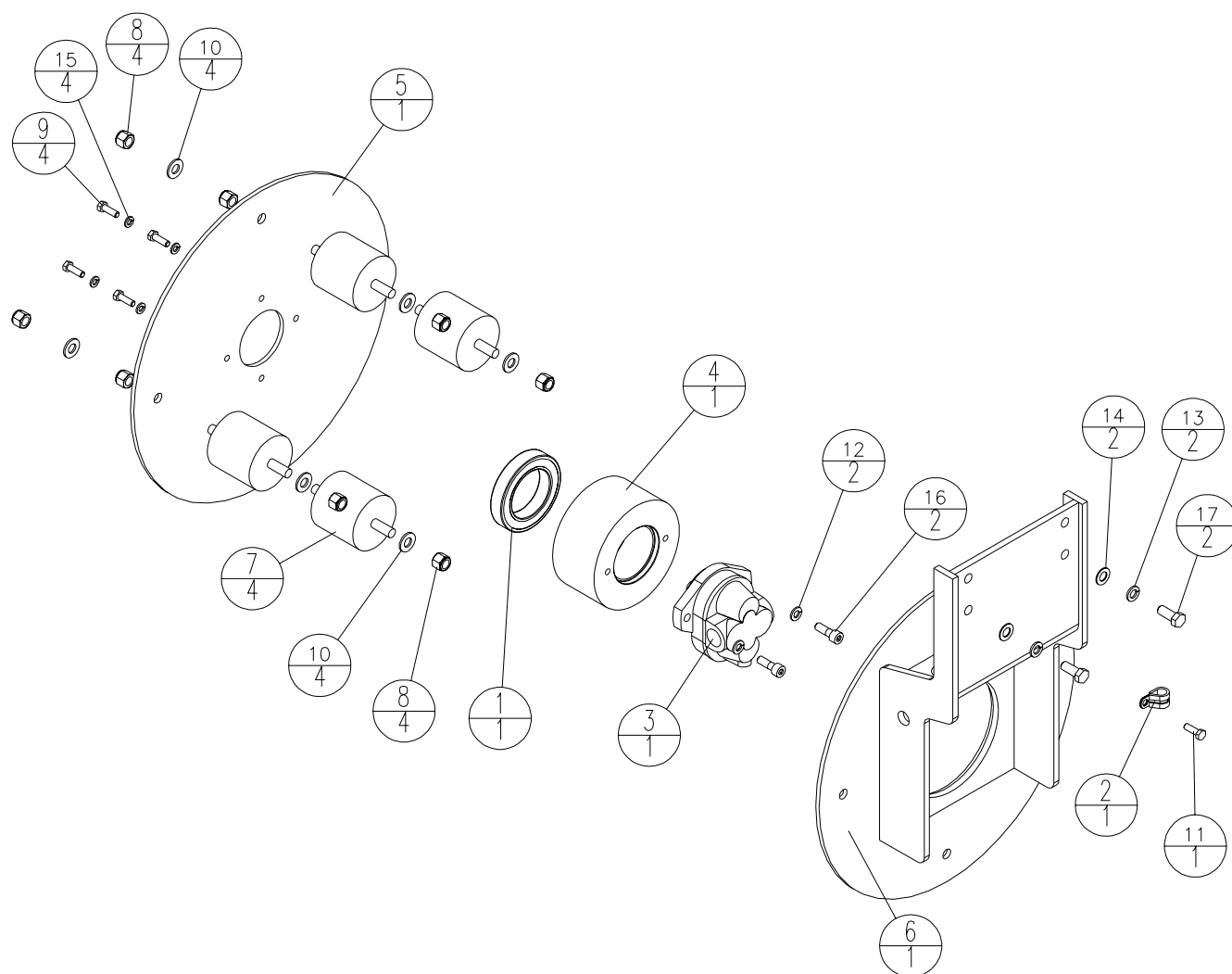
4.9 Front Drum/Eccentric WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	32279	BEARING ROLLER	2
2	32291	SEAL LIP 1.50 ID X 1.878 OD	1
3	32292	O-RING 4.00 ID X 3/32 CS	1
4	41014	COUPLING ASM ECCENTRIC	1
5	43556-2	DRUM WELD/MACHINE FRONT	1
6	43560	ECCENTRIC TUBE MACH	1
7	43561	CAP ECC. HSG LH	1
8	43562	CAP BEARING FRONT RH MACH.	1
9	43567	SHAFT ECCENTRIC	1
10	43568	WEIGHT ECCENTRIC WP3100	2
11	46732	PLUG 3/8 NPT HEX SOC BLK	1
12*	80087	HHCS M8-1.25 X 25 8.8 ZN	16
13	80595	KEY SQ 3/16 X 1	1
14	80805	WSHRL M12 SPLIT ZN	2
15	80812	WSHRL M8 SPLIT ZN	22
16*	80844	HHCS M12-1.75 X 50 8.8 ZN	2
17	80868	SHSS M8 X 10 BLK	6
18*	80869	HHCS M8-1.25 X 40 8.8 ZN	6

* LOCTITE 262

4. PARTS LIST

4.10 Front Hanger Eccentric WP3100, WP3100R, WP3100D



4. PARTS LIST

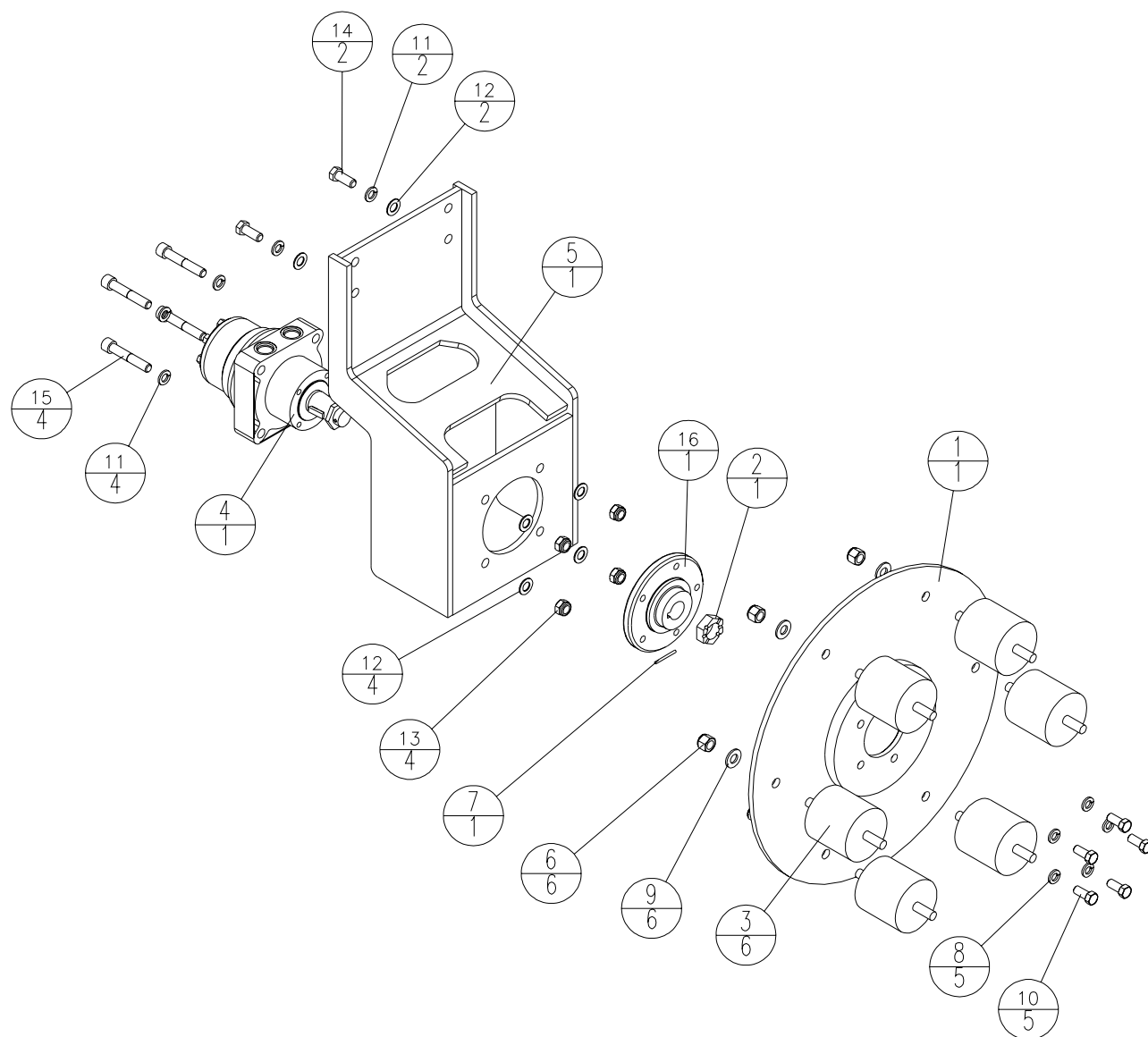
4.10 Front Hanger Eccentric WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	32280	BEARING BALL 2.7559 ID X 4.3307 OD	1
2	35448	CLAMP 5/8 RUBBER LOOP	1
3	39810	MOTOR ECCENTRIC W/DRAIN	1
4	43557-2	HOUSING DRUM BEARING	1
5	43564-2	PLATE S-MOUNT FRONT RH	1
6	43579-2	WELD HANGER FRONT RH	1
7*	47368	SHOCKMOUNT 78 DURO	4
8	80051	NUTNY 1/2-13 ZN	8
9*	80087	HHCS M8-1.25 X 25 8.8 ZN	4
10	80343	WSHR SAE 1/2 ZN	8
11*	80802	HWHST M8-1.25 x 25 TY-D ZN	1
12	80804	WSHRL M10 SPLIT ZN	2
13	80805	WSHRL M12 SPLIT ZN	2
14	80807	WSHR FLAT M12 X 24 ZN	2
15	80812	WSHRL M8 SPLIT ZN	4
16*	80872	SHCS M10-1.5 X 30 8.8 ZN	2
17*	80873	HHCS M12-1.75 X 30 10.9 ZN	2

* LOCTITE 262

4. PARTS LIST

4.11 Front Hanger Drive WP3100, WP3100R, WP3100D



4. PARTS LIST

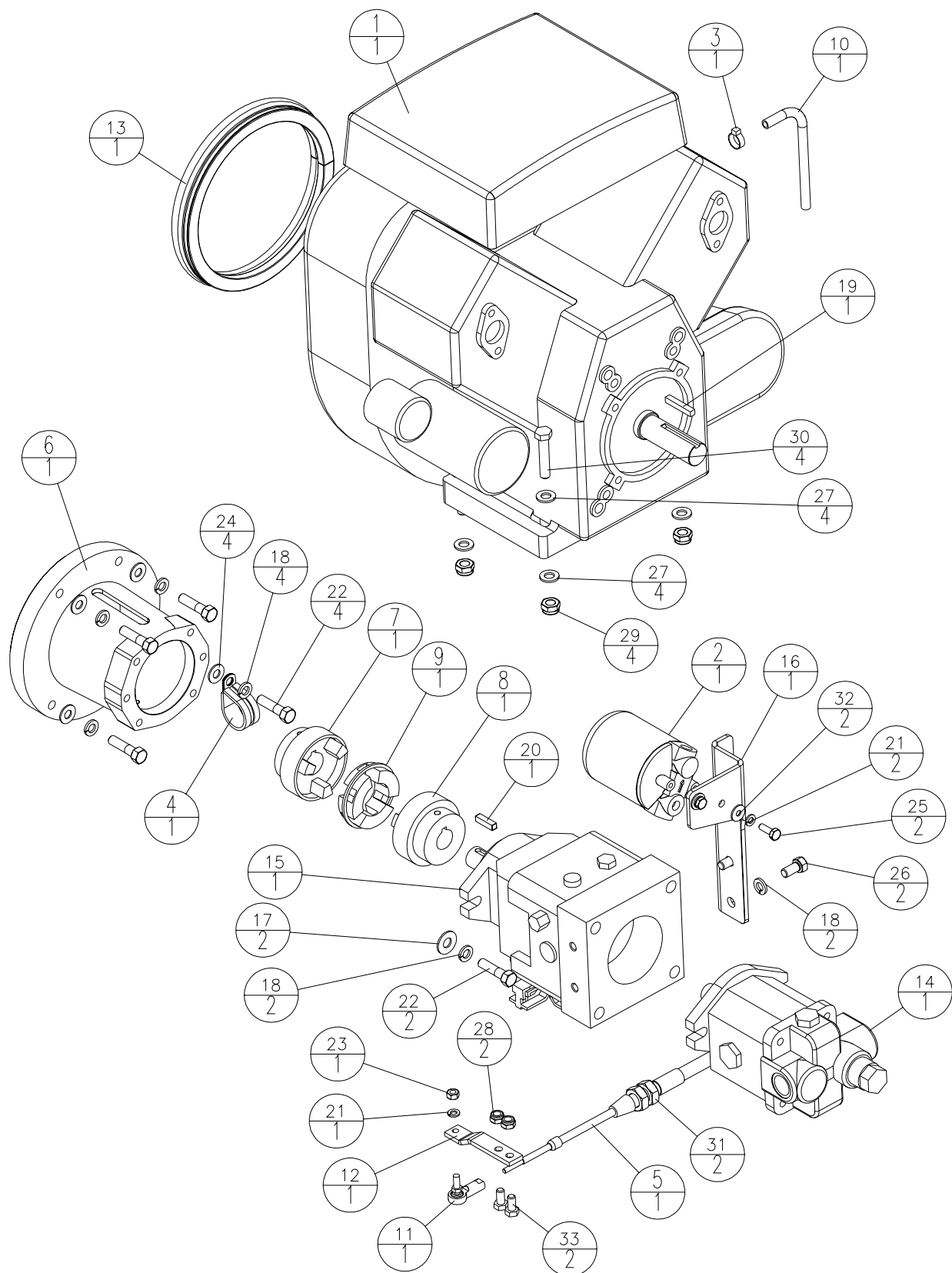
4.11 Front Hanger Drive WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	43683-2	WELD DRIVE PLATE FRONT LH	1
2	46729	NUT 1-20	1
3*	47368	SHOCKMOUNT 78 DURO	6
4	50122	MOTOR HYD GEROTOR 15.14CIR 2500PSI	1
5	50131-2	WELD HANGER LH FRONT	1
6	80051	NUTNY 1/2-13 ZN	6
7	80316	PINCT 1/8 X 1-1/2 ZN	1
8	80335	WSHRL 7/16 MED SPLIT ZN	5
9	80343	WSHR SAE 1/2 ZN	6
10*	80594	HHCS 7/16-20 X 1 GR5 ZN	5
11	80805	WSHRL M12 SPLIT ZN	6
12	80807	WSHR FLAT M12 X 24 ZN	6
13	80830	NUTNY M12-1.75 ZN	4
14*	80873	HHCS M12-1.75 X 30 10.9 ZN	2
15*	80945	SHCS M12-1.75 X 70 8.8 ZN	4
16	43551R	HUB WHEEL MOTOR MACH.	1

* LOCTITE 262

4. PARTS LIST

4.12 Power Pack 18 HP Honda



4. PARTS LIST

4.12 Power Pack 18 HP Honda

ITEM	PART NO.	DESCRIPTION	QTY
1	30348	ENGINE 18HP HONDA	1
2	31376	FILTER HYDRAULIC 10M STAUFF	1
3	34089	CLAMP HOSE 5/8	1
4	36732	CLAMP LOOP 1.25	1
5	38602	CABLE FWD/RVS	1
6	39093	ADAPTOR PUMP/MOTOR	1
7	39094	COUPLING 1 ID X 1/4 KEY	1
8	39095	COUPLING 7/8 ID X 1/4 KEY	1
9	39096	INSERT COUPLING	1
10	46186	HOSE 1/4 LOW PRESSURE	1
11	50114	ROD END .25	1
12	50120-2	LEVER PUMP WP3100	1
13	50123	SEAL 7.08in RS-132	1
14	50130	PUMP HYDRAULIC GEAR .67Ccir 2500psi	1
15	50232	PUMP HYDRAULIC PISTON .98cir 2900psi	1
16	50538-2	BRACKET FILTER HYDRAULIC	1
17	80043	WSHR WROT 3/8 ZN	2
18	80058	WSHRL 3/8 MED SPLIT ZN	8
19	80061	KEY SQ 1/4 x 1.50 CLASS 1 PLN	1
20	80100	KEY SQ 1/4 X 1 CLASS 1 PLN	1
21	80116	WSHRL 1/4 MED SPLIT ZN	3
22	80176	HHCS 3/8-16 x 1 1/2 GR2 ZN	6
23	80237	NUTFX 1/4-28 ZN	1
24	80342	WSHR SAE 3/8 ZN	4
25	80434	HHCS 1/4-20 X 3/4 GR5 ZN	2
26	80686	HHCS 3/8-16 X 3/4 GR8 ZN	2
27	80806	WSHR FLAT M10 X 20 ZN	8
28	80817	NUTNY M8-1.25 ZN	2

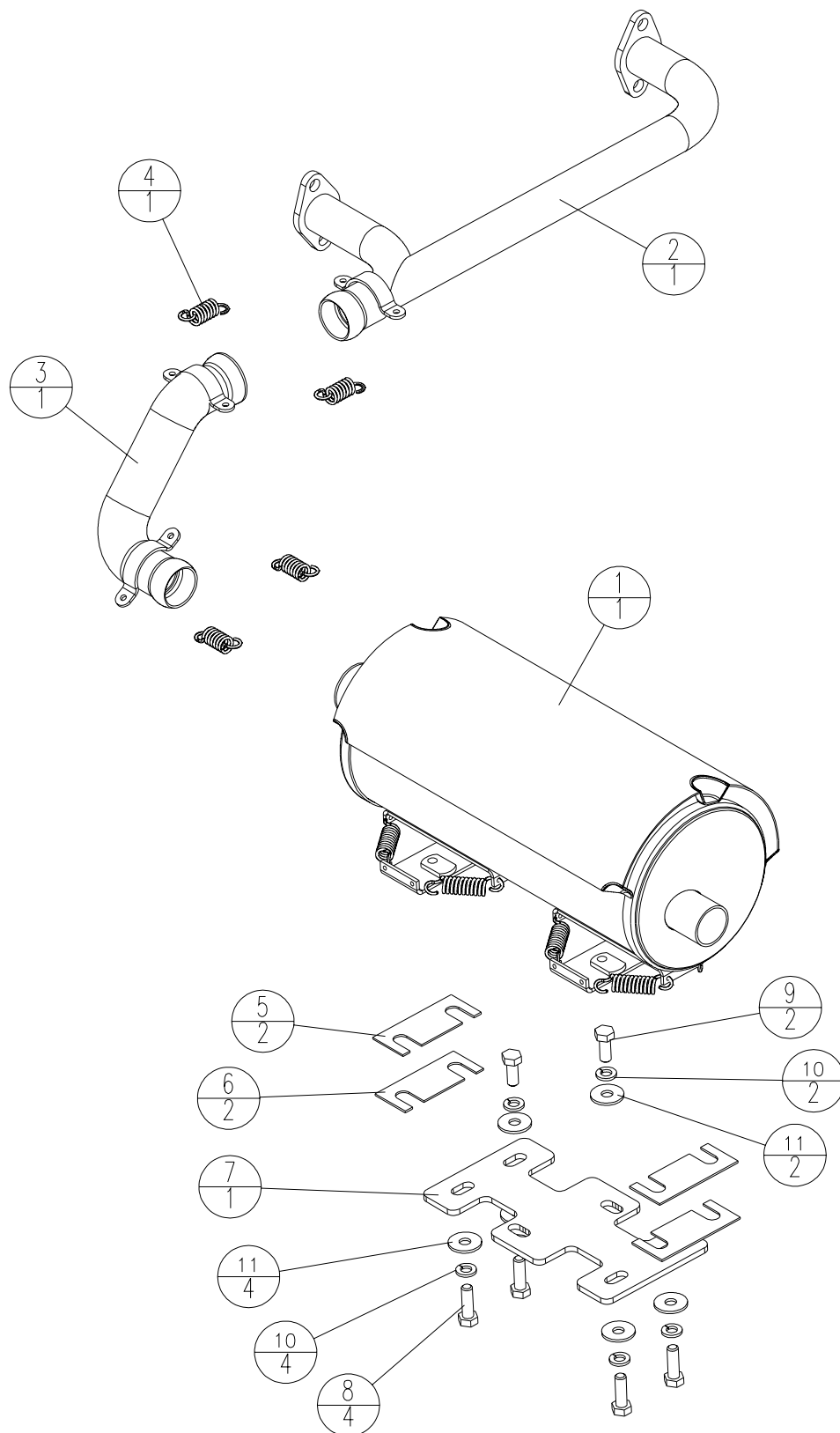
15a 50129 PUMP HYDRAULIC PISTON .98CIR GEAR .67CIR 1

29	80833	NUTNY M10-1.5 ZN	4
30	80838	HHCS M10-1.5 X 50 8.8 ZN	4
31	81094	NUTFX 5/8-18 ZN	2
32	81181	WSHR FLAT M6 X 18 ZN	2
33	81183	HHCS M8-1.25 X 16 8.8 ZN	2

* LOCTITE 262

4. PARTS LIST

4.13 Exhaust Honda



4. PARTS LIST

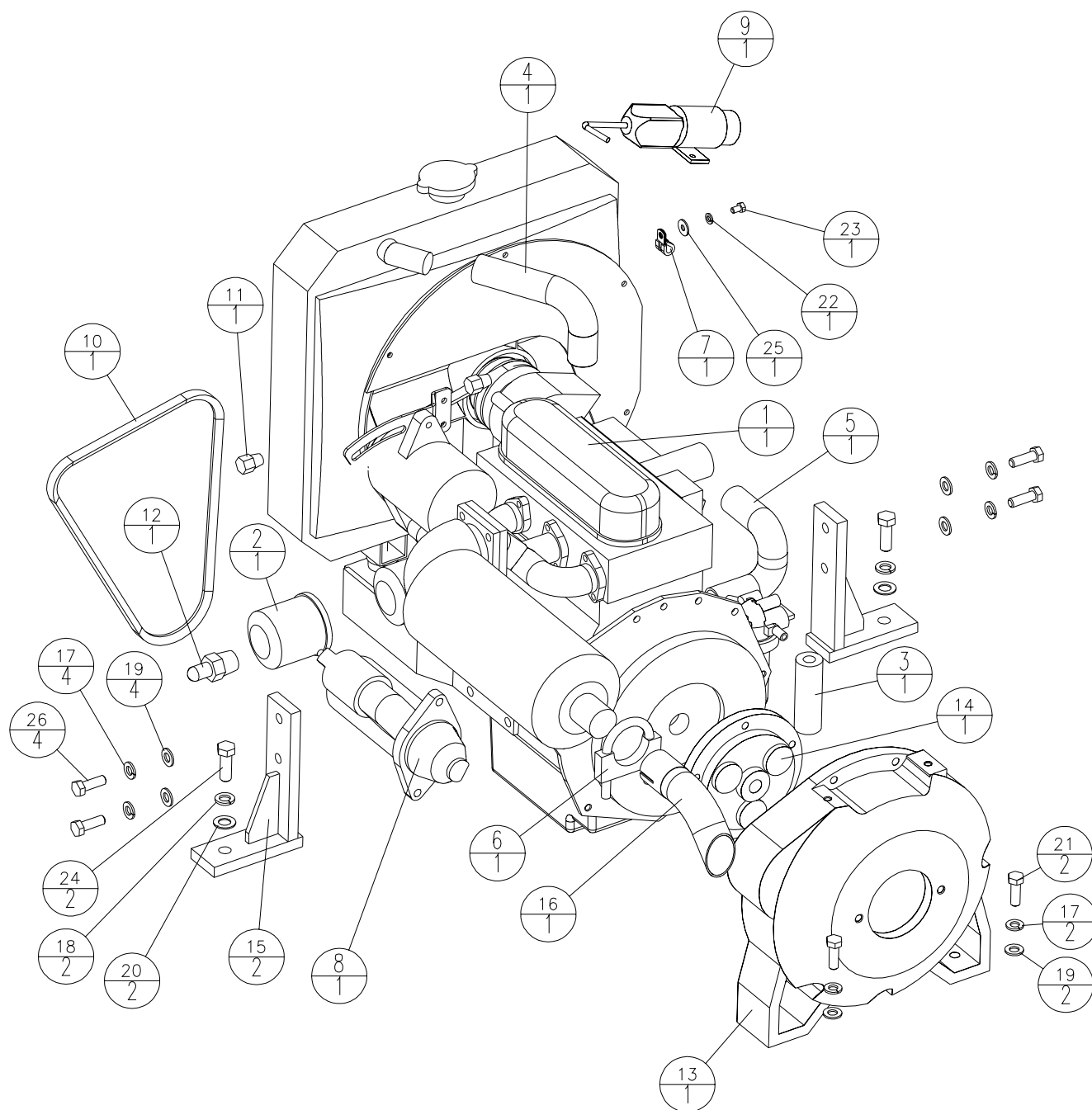
4.13 Exhaust Honda

ITEM	PART NO.	DESCRIPTION	QTY
1	31345	MUFFLER GX610	1
2	31346	MANIFOLD GX610	1
3	31347	ELBOW MUFFLER GX610	1
4	31348	SET SPRING MUFFLER	1
5	45896-2	SHIM MUFFLER 16GA	2
6	45897-2	SHIM MUFFLER 11GA	2
7	45898-2	PLATE MOUNT MUFFLER	1
8*	80087	HHCS M8-1.25 X 25 8.8 ZN	4
9*	80406	HHCS M8-1.25 X 20 8.8 ZN	2
10	80812	WSHRL M8 SPLIT ZN	6
11	80813	WSHR FLAT M8 X 24 ZN	6

* LOCTITE 262

4. PARTS LIST

4.14 Power Pack Kubota WP3100D



4. PARTS LIST

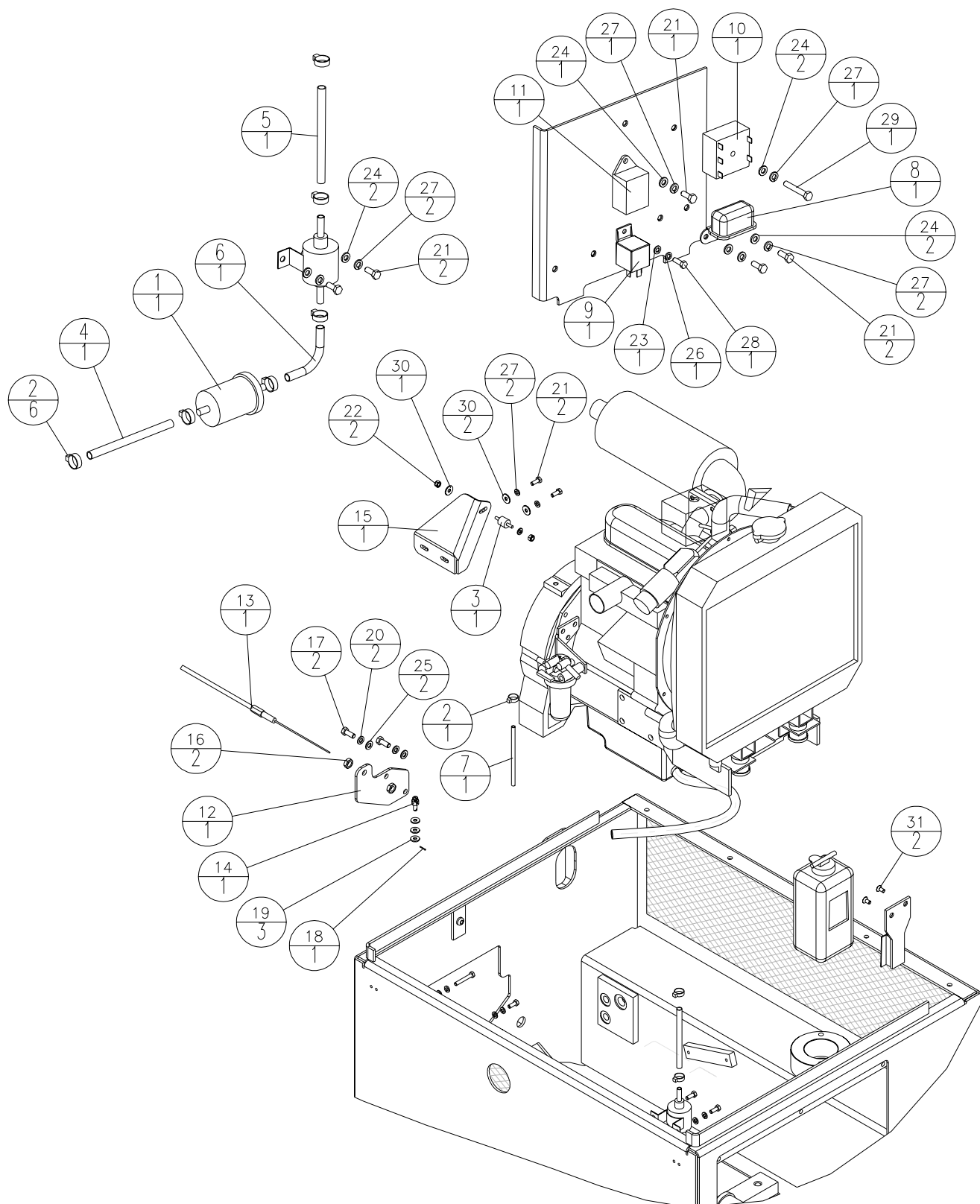
4.14 Power Pack Kubota WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	30429	ENGINE KUBOTA 20HP DIESEL	1
2	31369	OIL FILTER	1
3	31371	ELEMENT FILTER FUEL	1
4	31373	WATER PIPE UPPER	1
5	31374	WATER PIPE LOWER	1
6	36779	CLAMP, PIPE MUFFLER 1-1/2	1
7	39509	CLAMP 3/8 RUBBER LOOP	1
8	48565	STARTER 12VDC	1
9	48566	STOP SOLENOID	1
10	48567	BELT FAN RADIATOR	1
11	48568	THREMOSWITCH	1
12	48569	OIL SWITCH	1
13	48570	HOUSING HAYES PUMP-MOTOR	1
14	48572	COUPLING HAYES PUMP-MOTOR	1
15	50335-2	WELD BRACKET MOUNTING ENGINE	2
16	50403-2	TAILPIPE EXHAUST KUBOTA	1
17	80804	WSHRL M10 SPLIT ZN	6
18	80805	WSHRL M12 SPLIT ZN	2
19	80806	WSHR FLAT M10 X 20 ZN	6
20	80807	WSHR FLAT M12 X 24 ZN	2
21*	80815	HHCS M10-1.5 X 30 8.8 ZN	2
22	80860	WSHRL M6 SPLIT ZN	1
23*	80865	HHCS M6-1 X 10 8.8 ZN	1
24*	81029	HHCS M12-1.75 X 35 10.9 BLK ZN	2
25	81181	WSHR FLAT M6 X 18 ZN	1
26*	81199	HHCS M10-1.25 X 30 8.8 ZN	4

* LOCTITE 262

4. PARTS LIST

4.15 Electric Panel/Engine Component WP3100D



4. PARTS LIST

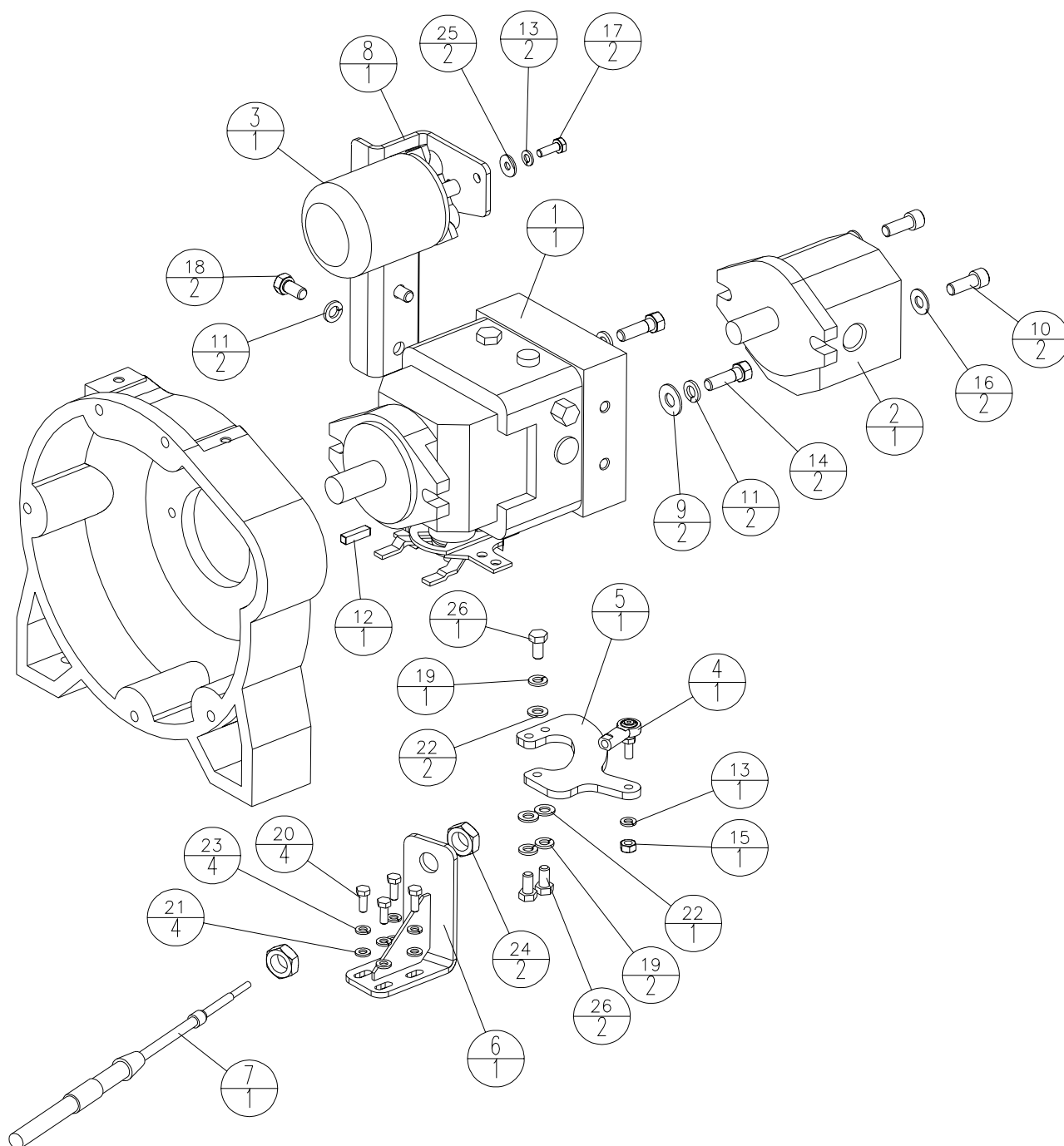
4.15 Electric Panel/Engine Component WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	31370	FILTER FUEL INLINE	1
2	34089	CLAMP HOSE 5/8	7
3	47442	ISOLATOR COOLER	1
4	47633	HOSE FUEL 5/16in. ID 32.25in.	1
5	47634	HOSE FUEL 5/16in. ID 11.00in.	1
6	47635	HOSE FUEL 5/16in. ID 3.25in.	1
7	47636	HOSE FUEL 3/16in. ID 47.5in.	1
8	48364	RELAY POWER 12VDC	1
9	48401	RELAY 70A	1
10	48571	RELAY SHUTDOWN 12VDC 2 SEC	1
11	48573	TIMER	1
12	50392	PLATE CABLE THROTTLE	1
13	50402	CABLE THROTTLE KUBOTA D722	1
14	50413	PIVOT CABLE STOP	1
15	50419	WELD BRACKET SUPPORT RADIATOR	1
16	80243	NTFXJ 3/8-24 ZN	2
17	80406	HHCS M8-1.25 X 20 8.8 ZN	2
18	80448	PINCT 1/6 X 1/2 ZN	1
19	80571	WSHR 1/4 SAE ZN	3
20	80812	WSHRL M8 SPLIT ZN	2
21	80836	HHCS M6-1 X 16 8.8 ZN	7
22	80851	NUTNY M6-1 ZN	2
23	80855	WSHR FLAT M5 X 10 ZN	1
24	80856	WSHR FLAT M6 X 12 ZN	7
25	80857	WSHR FLAT M8 X 16 ZN	2
26	80859	WSHRL M5 SPLIT ZN	1
27	80860	WSHRL M6 SPLIT ZN	8
28	80889	HHCS M5-.8 X 16 8.8 ZN	1
29	80947	HHCS M6-1 X 40 8.8 ZN	1
30	81181	WSHR FLAT M6 X 18 ZN	3
31	81197	FHSCS M6-1 X 12 10.9 BLK	2

* LOCTITE 262

4. PARTS LIST

4.16 Pump Assembly WP3100D



4. PARTS LIST

4.16 Pump Assembly WP3100D

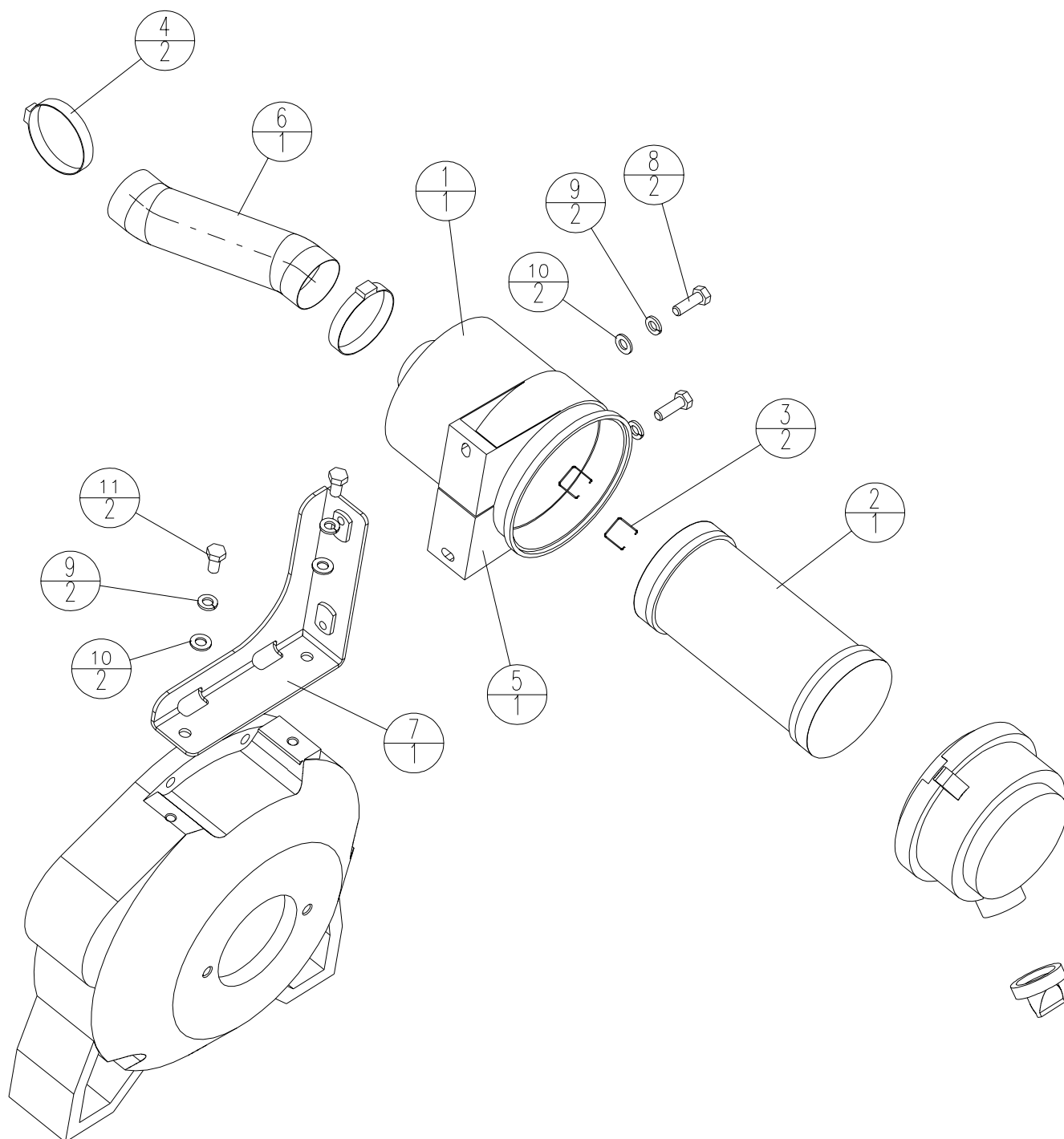
ITEM	PART NO.	DESCRIPTION	QTY
1	30433	PUMP HYDRAULIC PISTON .98 CIR 2900 PSI	1
2	30434	PUMP HYDRAULIC GEAR .67 CIR 2500PSI	1
3	31376	FILTER HYDRAULIC 10M STAUFF	1
4	50114	ROD END .25	1
5	50365-2	PLATE CONTROL PUMP	1
6	50366-2	WELD BRACKET CONTROL CABLE	1
7	50401	CABLE FWD/RVS	1
8	50538-2	BRACKET FILTER HYDRAULIC	1
9	80043	WSHR WROT 3/8 ZN	2
10 *	80047	SHCS 3/8-16 X 1 BLK	2
11	80058	WSHRL 3/8 MED SPLIT ZN	4
12	80100	KEY SQ 1/4 X 1 CLASS 1 PLN	1
13	80116	WSHRL 1/4 MED SPLIT ZN	3
14 *	80145	HHCS 3/8-16 X 1-1/4 GR5 ZN	2
15	80237	NUTFX 1/4-28 ZN	1
16	80342	WSHR SAE 3/8 ZN	2
17	80434	HHCS 1/4-20 X 3/4 GR5 ZN	2
18 *	80686	HHCS 3/8-16 X 3/4 GR8 ZN	2
19	80812	WSHRL M8 SPLIT ZN	3
20 *	80836	HHCS M6-1 X 16 8.8 ZN	4
21	80856	WSHR FLAT M6 X 12 ZN	4
22	80857	WSHR FLAT M8 X 16 ZN	3
23	80860	WSHRL M6 SPLIT ZN	4
24	81094	NUTFX 5/8-18 ZN	2
25	81181	WSHR FLAT M6 X 18 ZN	2
26*	81183	HHCS M8-1.25 X 16 8.8 ZN	3

1a 30430 PUMP HYDRAULIC PISTON .98 CIR GEAR .67 CIR 1

* LOCTITE 262

4. PARTS LIST

4.17 Air Filter WP3100D



4. PARTS LIST

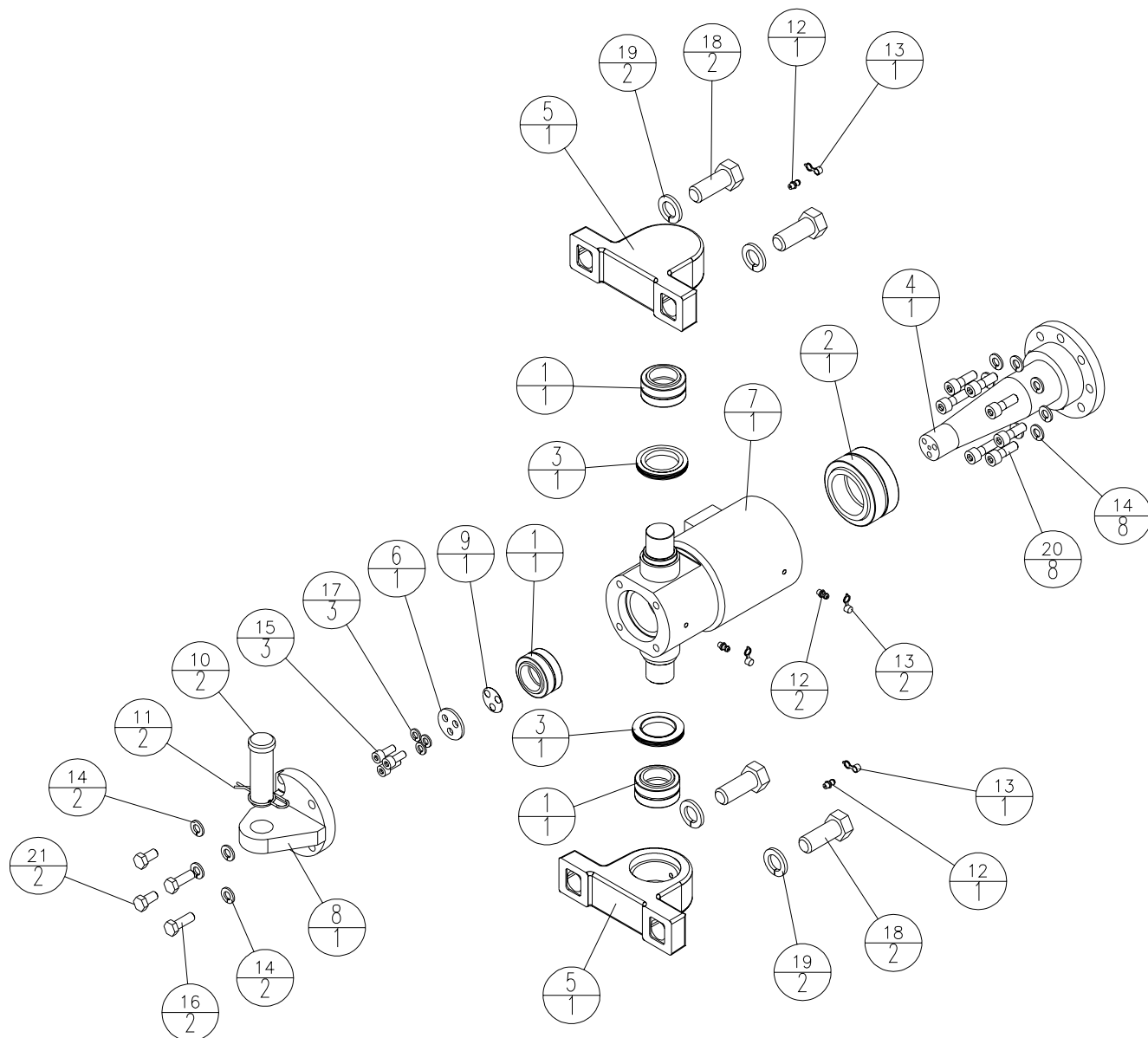
4.17 Air Filter WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	31372	ASSEMBLY AIR CLEANER	1
2	36559	FILTER AIR, PRIMARY	1
3	36562	LATCH COVER AIR CLEANER	2
4	39600	CLAMP HOSE 2" #28	2
5	39911	BAND, AIR CLEANER MOUNTING	1
6	47448	HOSE AIR IN FILTER	1
7	50393-2	WELD BRACKET AIR FILTER	1
8*	80087	HHCS M8-1.25 X 25 8.8 ZN	2
9	80812	WSHRL M8 SPLIT ZN	4
10	80857	WSHR FLAT M8 X 16 ZN	4
11*	81183	HHCS M8-1.25 X 16 8.8 ZN	2

* LOCTITE 262

4. PARTS LIST

4.18 Pivot WP3100, WP3100R, WP3100D



4. PARTS LIST

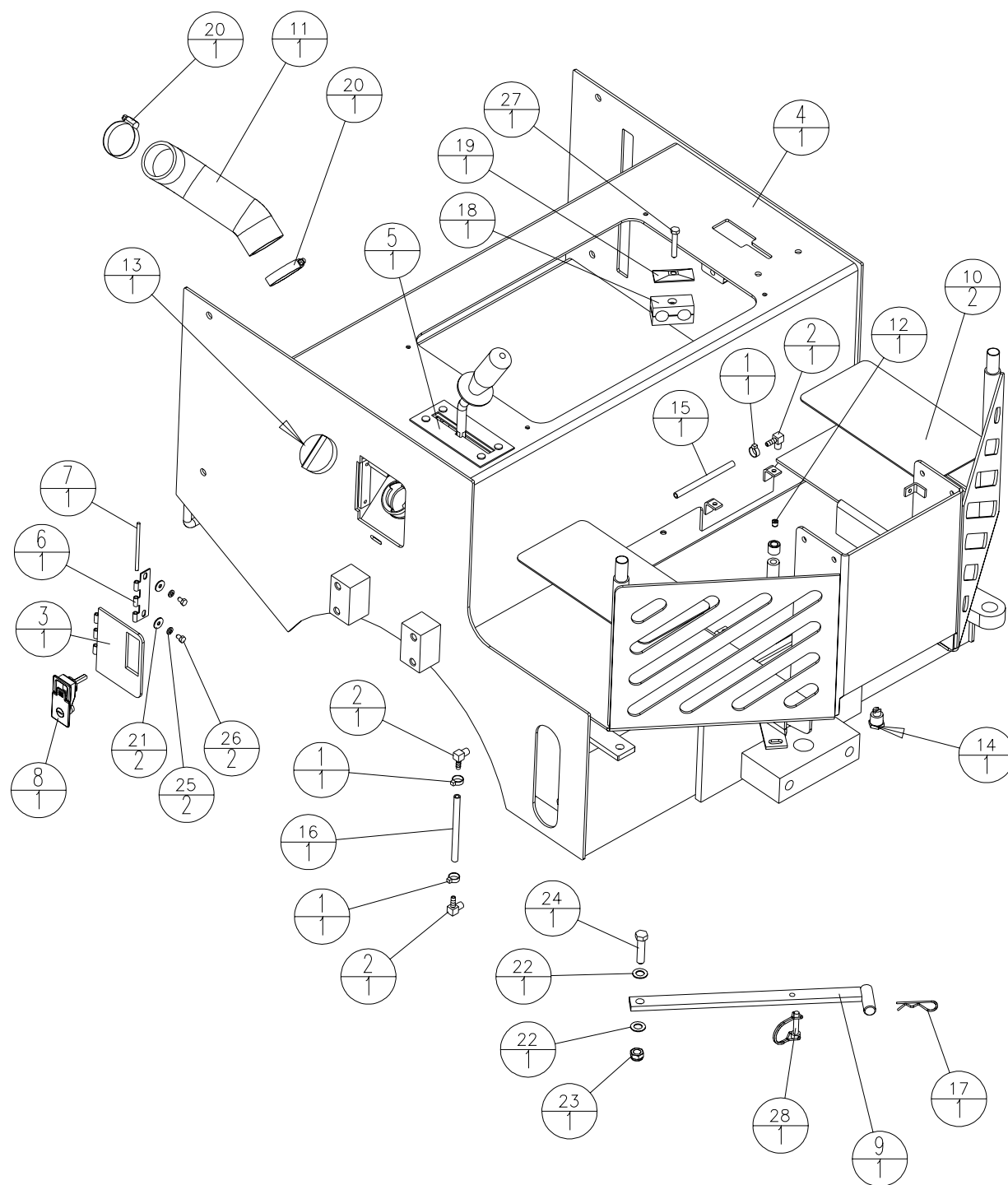
4.18 Pivot WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	32277	BEARING SPHERICAL 1.25 ID	3
2	32278	BEARING SPHERICAL 2.00 ID	1
3	32281	SEAL LIP TRIPLE 1.500	2
4	43517-2	PIN PIVOT	1
5	43518-2	PILLOWBLOCK	2
6	43521	RETAINER PIN	1
7	43523-2	WELD PIVOT	1
8	43524-2	WELD TAB HINGE	1
9 #	43658	SHIM PIVOT	1
10	44203	PIN CLEVIS 1"	2
11	44204	RUE RING 1"	2
12	46042	FITTING GREASE 1/4-28 ZN	4
13	47001	CAP GREASE FITTING	4
14	80804	WSHRL M10 SPLIT ZN	12
15 *	80810	SHCS M8-1.25 X 20 8.8 ZN	3
16 *	80815	HHCS M10-1.5 X 30 8.8 ZN	2
17	80828	WSHRL M8 SPLIT ZN	3
18 *	80870	HHCS M20-2.5 X 50 8.8 ZN	4
19	80871	WSHRL M20 SPLIT ZN	4
20 *	80872	SHCS M10-1.5 X 30 8.8 ZN	8
21 *	80886	HHCS M10-1.5 X 20 8.8 ZN	2

* LOCTITE 262
AS REQUIRED

4. PARTS LIST

4.19 Rear Frame WP3100



4. PARTS LIST

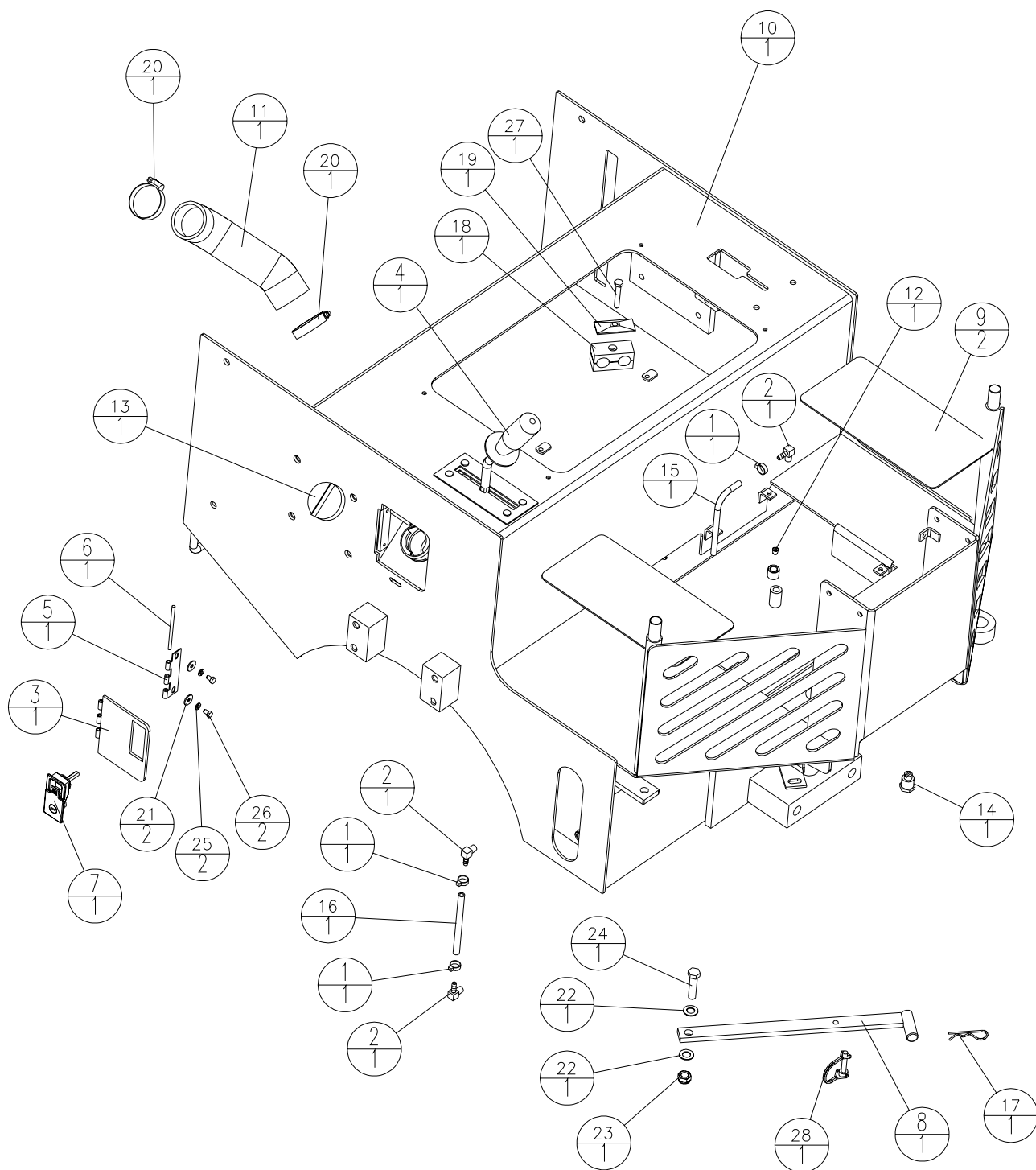
4.19 Rear Frame WP3100

ITEM	PART NO.	DESCRIPTION	QTY
1	34089	CLAMP HOSE 5/8	3
2	34486	ELBOW 90 1/8NPT X 1/4H	3
3	39718-2	DOOR FUEL WELD	1
4	39728-2	WELD FRAME REAR WP3100	1
5	39738	CONTROL FWD/RVS	1
6	39747-2	HINGE FUEL DOOR 3in LG	1
7	39748	PIN FUEL DOOR	1
8	41023	LATCH FUEL DOOR	1
9	43580-2	WELD LINK TRANSPORT	1
10	43674	SKID TREAD 6 X 12	2
11	44995	HOSE FILL FUEL	1
12	46011	PLUG 1/8 NPT HEX SOC BLK	1
13	46059	CAP, FUEL FILLER NECK	1
14	46108	PLUG MAGN. 1/2 HXHD	1
15	46186	HOSE 1/4 LOW PRESSURE	1
16	46897	TUBE TEFLON.25in X 5.125in LG	1
17	47381	HAIRPIN 3/8-3/4 .093 ZN	1
18	47455	CLAMP SPLIT DUAL HOSE 21.3 21.3	1
19	47456	COVER PLATE DUAL HOSE	1
20	47511	CLAMP HOSE #36 SST	2
21	80347	WSHR WROT 1/4 ZN	2
22	80807	WSHR FLAT M12 X 24 ZN	2
23	80830	NUTNY M12-1.75 ZN	1
24	80844	HHCS M12-1.75 X 50 8.8 ZN	1
25	80860	WSHRL M6 SPLIT ZN	2
26*	80865	HHCS M6-1 X 10 8.8 ZN	2
27*	80883	HHCS M8-1.25 X 50 8.8 ZN	1
28	80962	PIN SNAP SAFTEY 5/16 ODX 1 3/8 GRIP LGTH	1

* LOCTITE 262

4. PARTS LIST

4.20 Rear Frame WP3100R



4. PARTS LIST

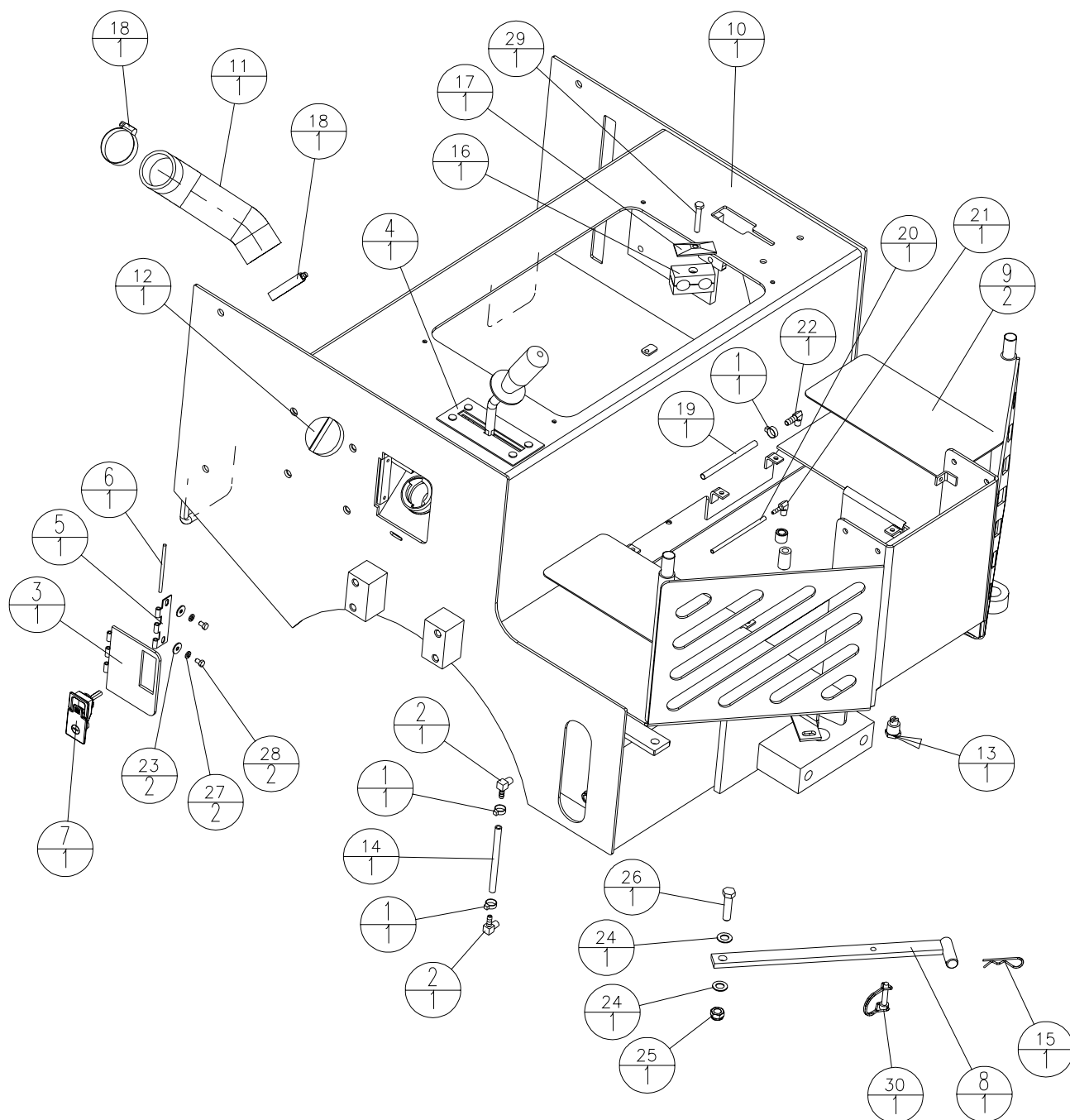
4.20 Rear Frame WP3100R

ITEM	PART NO.	DESCRIPTION	QTY
1	34089	CLAMP HOSE 5/8	3
2	34486	ELBOW 90 1/8NPT X 1/4H	3
3	39718-2	DOOR FUEL WELD	1
4	39738	CONTROL FWD/RVS	1
5	39747-2	HINGE FUEL DOOR 3in LG	1
6	39748	PIN FUEL DOOR	1
7	41023	LATCH FUEL DOOR	1
8	43580-2	WELD LINK TRANSPORT	1
9	43674	SKID TREAD 6 X 12	2
10	44618-2	WELD FRAME REAR WP3100R	1
11	44995	HOSE FILL FUEL	1
12	46011	PLUG 1/8 NPT HEX SOC BLK	1
13	46059	CAP, FUEL FILLER NECK	1
14	46108	PLUG MAGN. 1/2 HXHD	1
15	46186	HOSE 1/4 LOW PRESSURE	1
16	46897	TUBE TEFLON.25in X 5.125in LG	1
17	47381	HAIRPIN 3/8-3/4 .093 ZN	1
18	47455	CLAMP SPLIT DUAL HOSE 21.3 21.3	1
19	47456	COVER PLATE DUAL HOSE	1
20	47511	CLAMP HOSE #36 SST	2
21	80347	WSHR WROT 1/4 ZN	2
22	80807	WSHR FLAT M12 X 24 ZN	2
23	80830	NUTNY M12-1.75 ZN	1
24	80844	HHCS M12-1.75 X 50 8.8 ZN	1
25	80860	WSHRL M6 SPLIT ZN	2
26*	80865	HHCS M6-1 X 10 8.8 ZN	2
27*	80883	HHCS M8-1.25 X 50 8.8 ZN	1
28	80962	PIN SNAP SAFTEY 5/16 ODX 1 3/8 GRIP LGTH	1

* LOCTITE 262

4. PARTS LIST

4.21 Rear Frame WP3100D



4. PARTS LIST

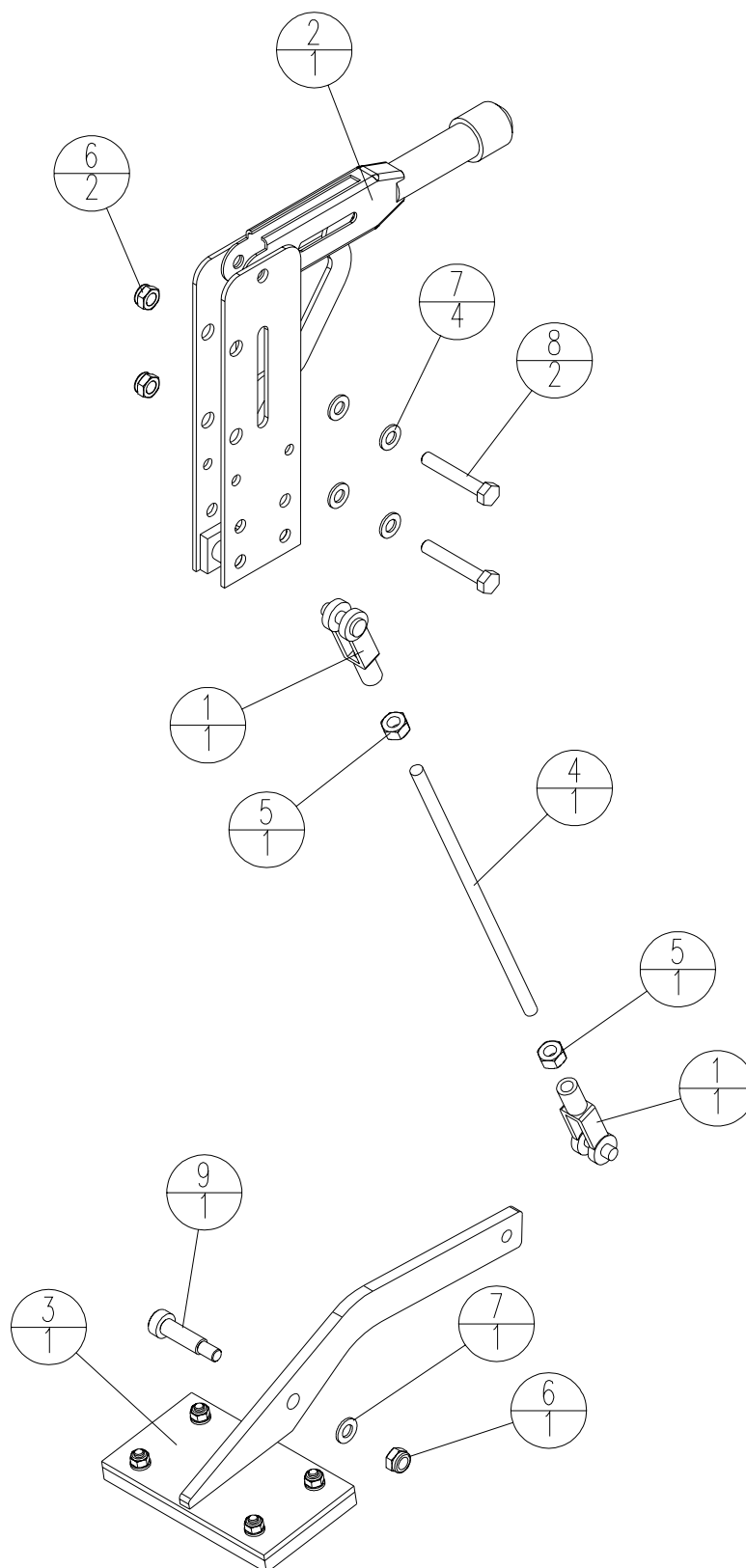
4.21 Rear Frame WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	34089	CLAMP HOSE 5/8	3
2	34486	ELBOW 90 1/8NPT X 1/4H	2
3	39718-2	DOOR FUEL WELD	1
4	39738	CONTROL FWD/RVS	1
5	39747-2	HINGE FUEL DOOR 3in LG	1
6	39748	PIN FUEL DOOR	1
7	41023	LATCH FUEL DOOR	1
8	43580-2	WELD LINK TRANSPORT	1
9	43674	SKID TREAD 6 X 12	2
10	44618-2	WELD FRAME REAR WP3100R	1
11	44995	HOSE FILL FUEL	1
12	46059	CAP, FUEL FILLER NECK	1
13	46108	PLUG MAGN. 1/2 HXHD	1
14	46897	TUBE TEFLON.25in X 5.125in LG	1
15	47381	HAIRPIN 3/8-3/4 .093 ZN	1
16	47455	CLAMP SPLIT DUAL HOSE 21.3 21.3	1
17	47456	COVER PLATE DUAL HOSE	1
18	47511	CLAMP HOSE #36 SST	2
19	47633	HOSE FUEL 5/16in. ID 32.25in.	1
20	47636	HOSE FUEL 3/16in. ID 47.5in.	1
21	47640	FITTING HYD 90 3 HB 1/8 NPT	1
22	47641	FITTING HYD 90 5 HB 1/8 NPT	1
23	80347	WSHR WROT 1/4 ZN	2
24	80807	WSHR FLAT M12 X 24 ZN	2
25	80830	NUTNY M12-1.75 ZN	1
26	80844	HHCS M12-1.75 X 50 8.8 ZN	1
27	80860	WSHRL M6 SPLIT ZN	2
28*	80865	HHCS M6-1 X 10 8.8 ZN	2
29*	80883	HHCS M8-1.25 X 50 8.8 ZN	1
30	80962	PIN SNAP SAFTEY 5/16 ODX 1 3/8 GRIP LGTH	1

* LOCTITE 262

4. PARTS LIST

4.22 Brake WP3100, WP3100R, WP3100D



4. PARTS LIST

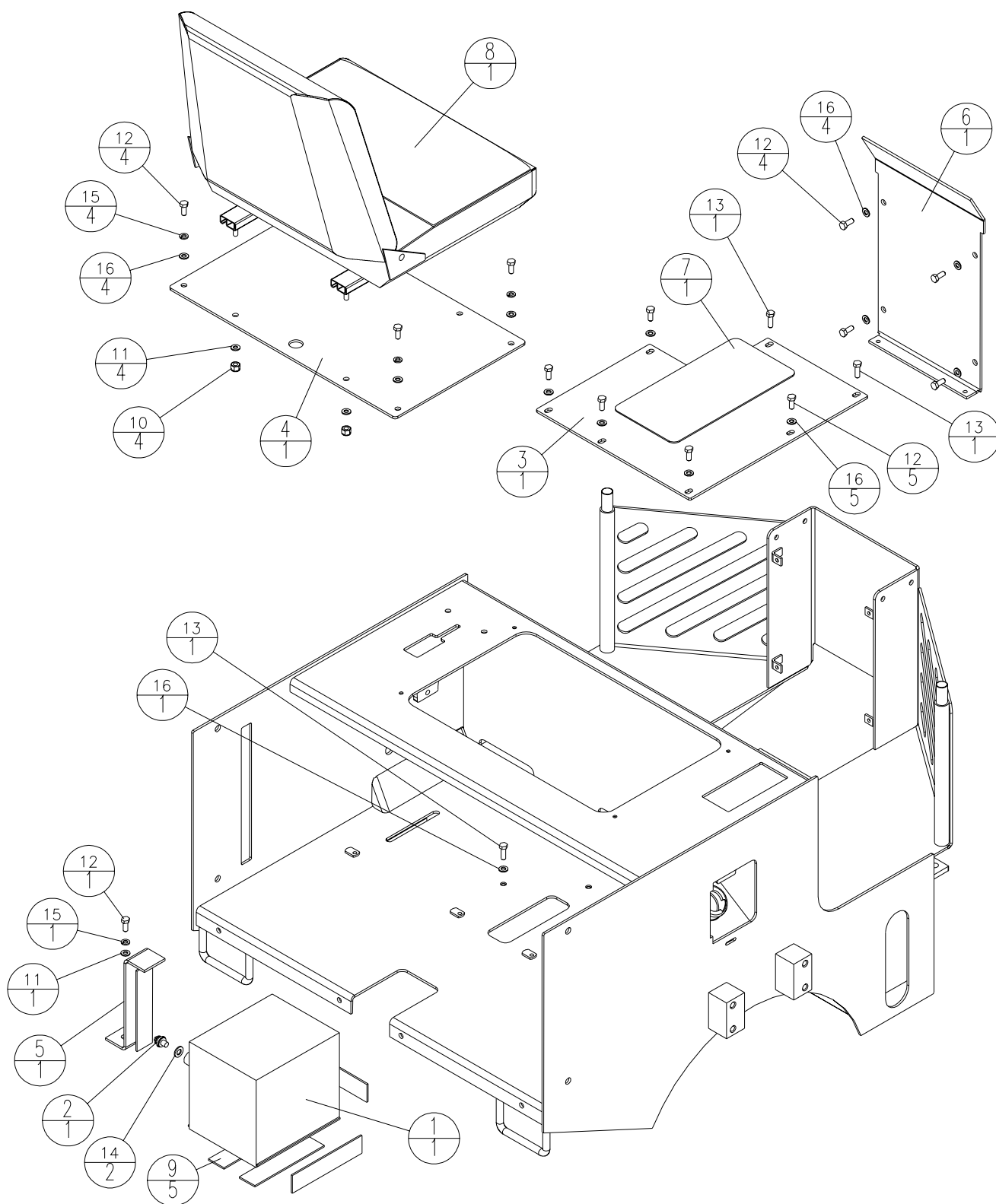
4.22 Brake WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	35925	CLEVIS 5/16-24 X 5/16 PIN	2
2	38095	BRAKE PARKING	1
3	43621-2	SUBASM BRAKE PLATE	1
4	43625	THDRD 5/16-24 X 9.50 PLAIN	1
5	80247	NUTFX 5/16-24 ZN	2
6	80817	NUTNY M8-1.25 ZN	3
7	80857	WSHR FLAT M8 X 16 ZN	5
8	80883	HHCS M8-1.25 X 50 8.8 ZN	2
9*	80885	SHSHB 10MM x 30 x M8 12.9 BLK	1

* LOCTITE 262

4. PARTS LIST

4.23 Battery/Seat/Covers WP3100



4. PARTS LIST

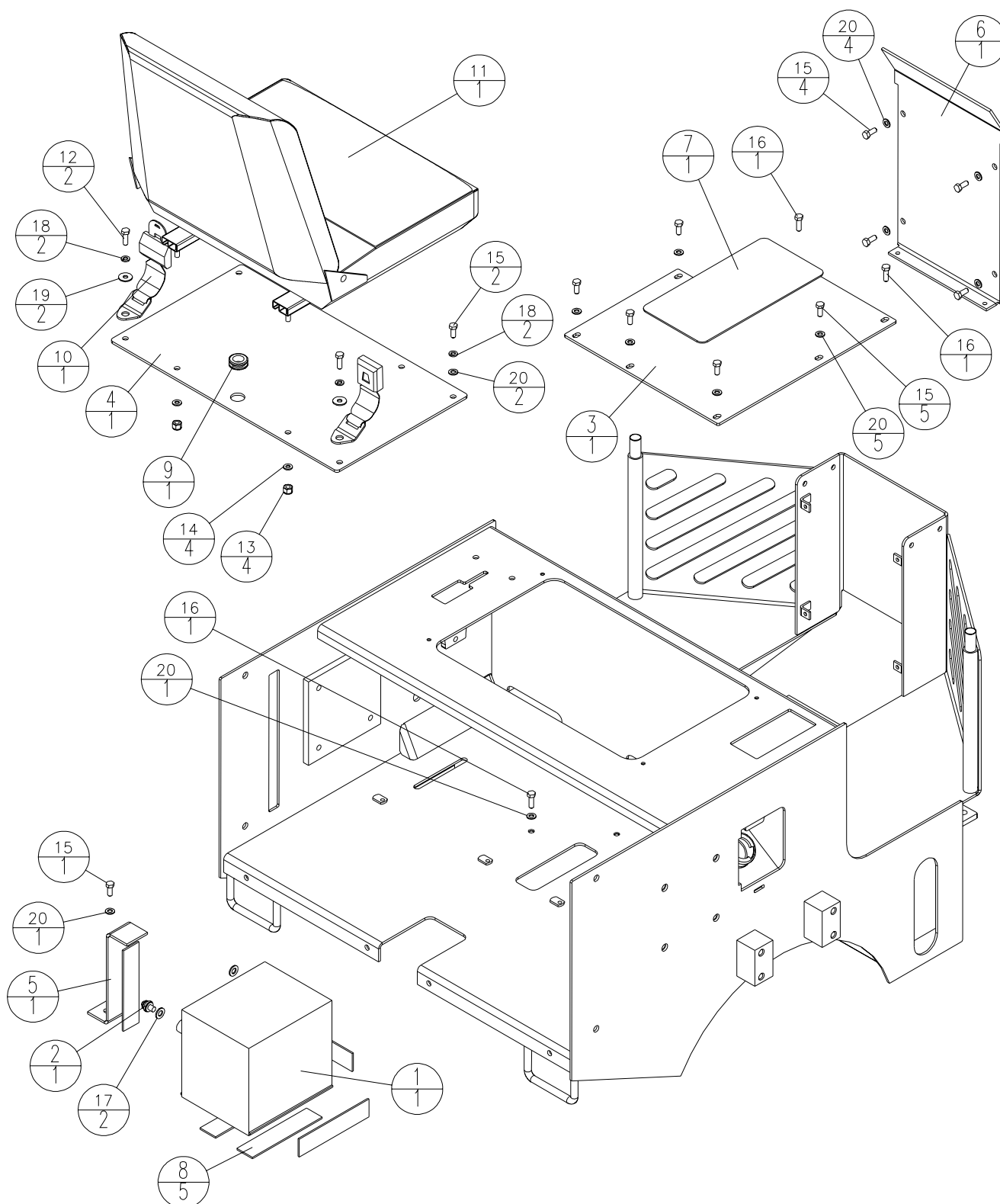
4.23 Battery/Seat/Covers WP3100

ITEM	PART NO.	DESCRIPTION	QTY
1	38543	BATTERY 12V 540 CCA	1
2	39355	SET BOLT BATTERY AVR/DDR	1
3	39716-2	PANEL FLOOR	1
4	43530-2	COVER SEAT	1
5	43638-2	STRAP BATTERY	1
6	43648-2	COVER STEERING LOWER	1
7	43674	SKID TREAD 6 X 12	1
8	47195	ASSY SEAT	1
9	47244	RBR 60 DURO 1.5 X 6.75	5
10	80114	NUTNY 5/16-18 ZN	4
11	80348	WSHR WROT 5/16 ZN	5
12*	80406	HHCS M8-1.25 X 20 8.8 ZN	14
13	80802	HWHST M8-1.25 x 25 TY-D ZN	3
14	80806	WSHR FLAT M10 X 20 ZN	2
15	80812	WSHRL M8 SPLIT ZN	5
16	80857	WSHR FLAT M8 X 16 ZN	14

* LOCTITE 262

4. PARTS LIST

4.24 Battery/Seat/Covers WP3100R, WP3100D



4. PARTS LIST

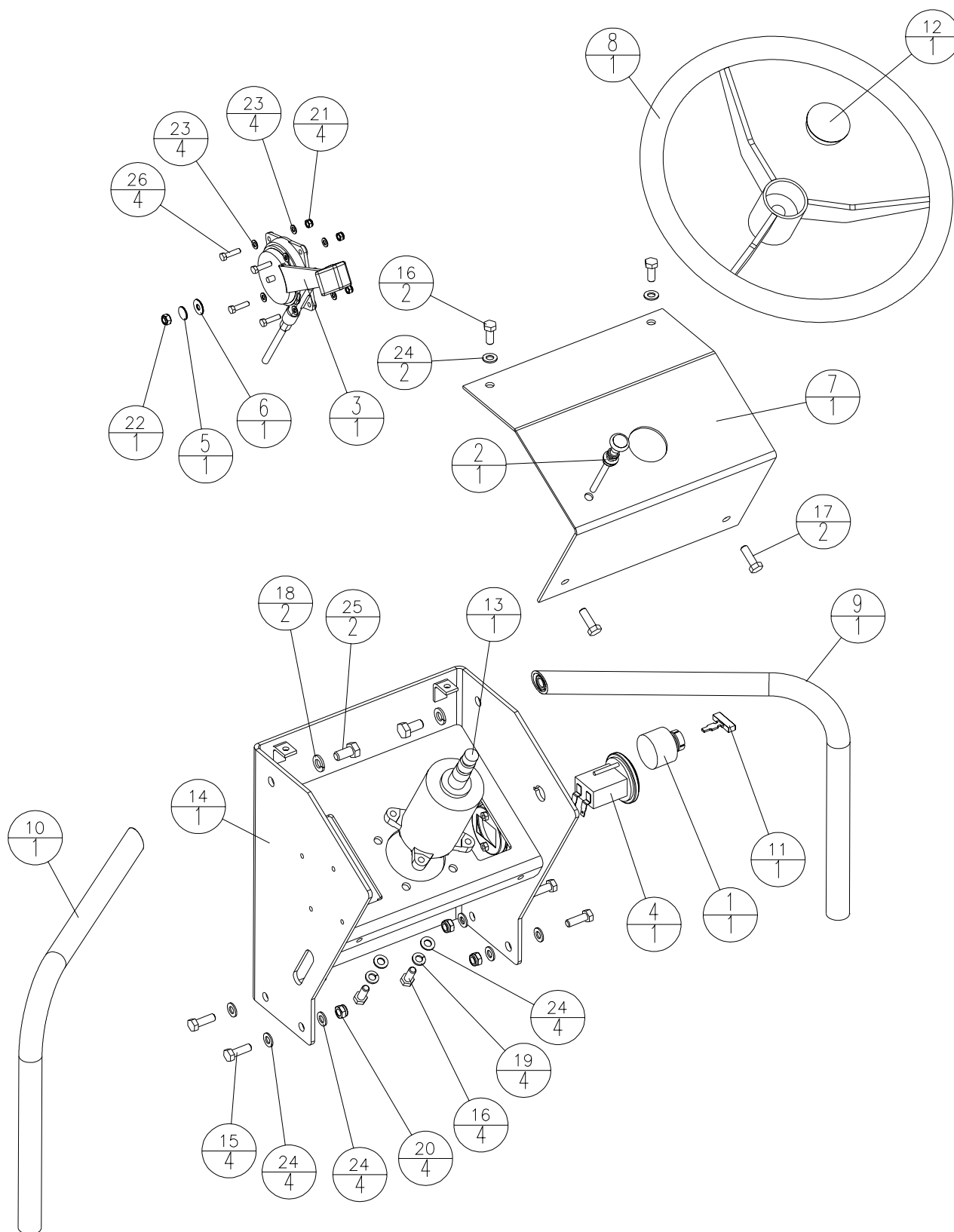
4.24 Battery/Seat/Covers WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	38543	BATTERY 12V 540 CCA	1
2	39355	SET BOLT BATTERY AVR/DDR	1
3	39716-2	PANEL FLOOR	1
4	43530-2	COVER SEAT	1
5	43638-2	STRAP BATTERY	1
6	43648-2	COVER STEERING LOWER	1
7	43674	SKID TREAD 6 X 12	1
8	47244	RBR 60 DURO 1.5 X 6.75	5
9	47257	GROMMET .69 ID X 1.00 GD	1
10	47439	SEATBELT LAP ROPS	1
11	48424	SEAT ASSY W/WM1019 SWITCH	1
12*	80087	HHCS M8-1.25 X 25 8.8 ZN	2
13	80114	NUTNY 5/16-18 ZN	4
14	80348	WSHR WROT 5/16 ZN	4
15*	80406	HHCS M8-1.25 X 20 8.8 ZN	12
16	80802	HWHST M8-1.25 x 25 TY-D ZN	3
17	80806	WSHR FLAT M10 X 20 ZN	2
18	80812	WSHRL M8 SPLIT ZN	4
19	80813	WSHR FLAT M8 X 24 ZN	2
20	80857	WSHR FLAT M8 X 16 ZN	13

* LOCTITE 262

4. PARTS LIST

4.25 Steering Console WP3100



4. PARTS LIST

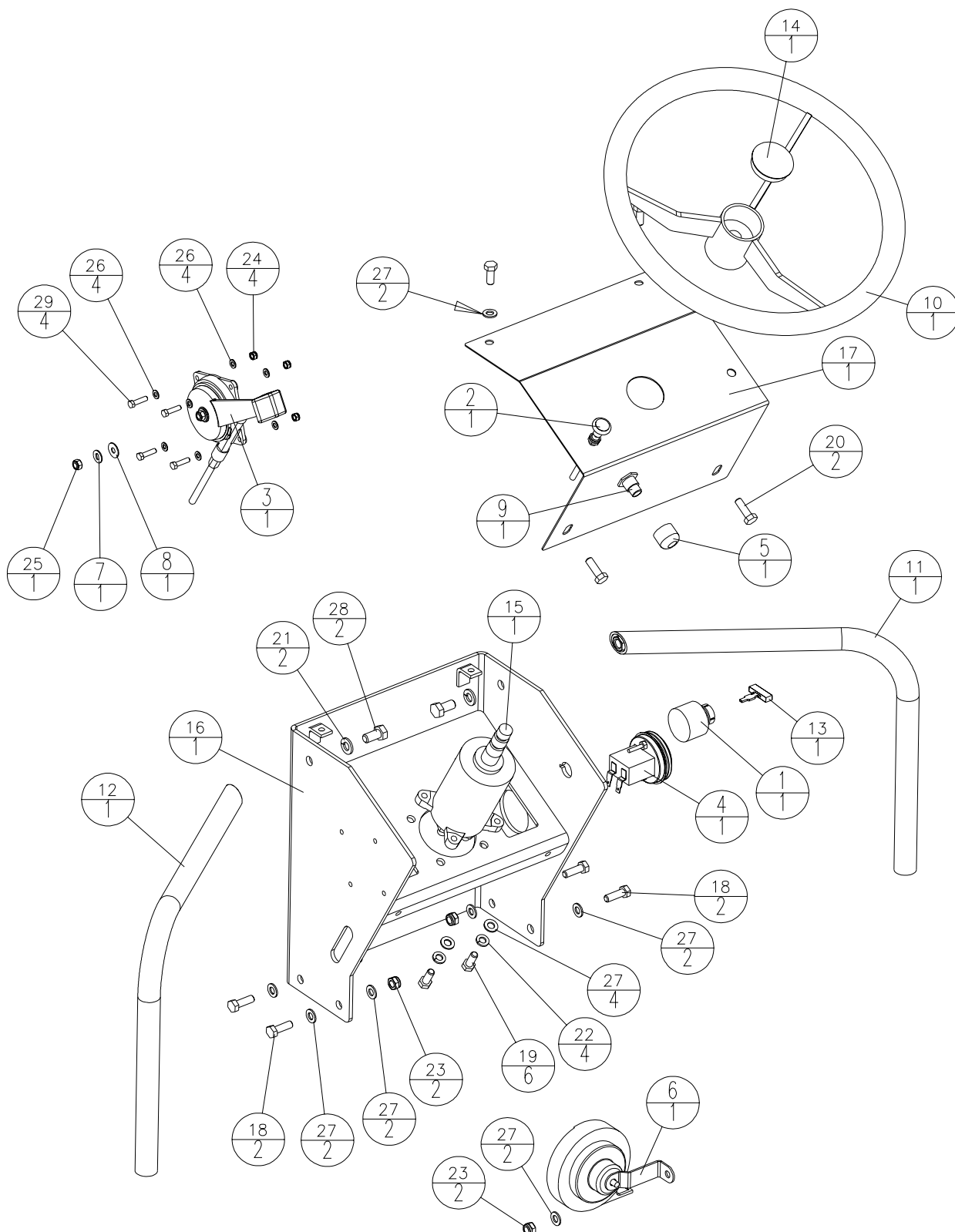
4.25 Steering Console WP3100

ITEM	PART NO.	DESCRIPTION	QTY
1	31276	IGNITION SWITCH HONDA	1
2	31349	ASSEMBLY CABLE CHOKE	1
3	32350	THROTTLE ASSEMBLY	1
4	36268	HOUR METER	1
5	39203	WSHR FLATTENED UNIDRM #14	1
6	39204	WSHR NYLON UNIDRUM #13	1
7	39725-2	COVER STEERING COLUMN	1
8	41017	WHEEL STEERING	1
9	43644-2	WELD GRAB BAR RH	1
10	43645-2	WELD GRAB BAR LH	1
11	46363	KEY IGNITION 8 HONDA	1
12	47218	CAP WHEEL STEERING	1
13	50124	CONTROL STEERING	1
14	50125-2	WELD STEERING FRAME	1
15	80087	HHCS M8-1.25 X 25 8.8 ZN	4
16*	80406	HHCS M8-1.25 X 20 8.8 ZN	6
17	80802	HWHST M8-1.25 x 25 TY-D ZN	2
18	80804	WSHRL M10 SPLIT ZN	2
19	80812	WSHRL M8 SPLIT ZN	4
20	80817	NUTNY M8-1.25 ZN	4
21	80850	NUTNY M5-.8 ZN	4
22	80851	NUTNY M6-1 ZN	1
23	80855	WSHR FLAT M5 X 10 ZN	8
24	80857	WSHR FLAT M8 X 16 ZN	14
25*	80886	HHCS M10-1.5 X 20 8.8 ZN	2
26	81002	HHCS M5-.8 X 20 8.8 ZN	4

* LOCTITE 262

4. PARTS LIST

4.26 Steering Console WP3100R



4. PARTS LIST

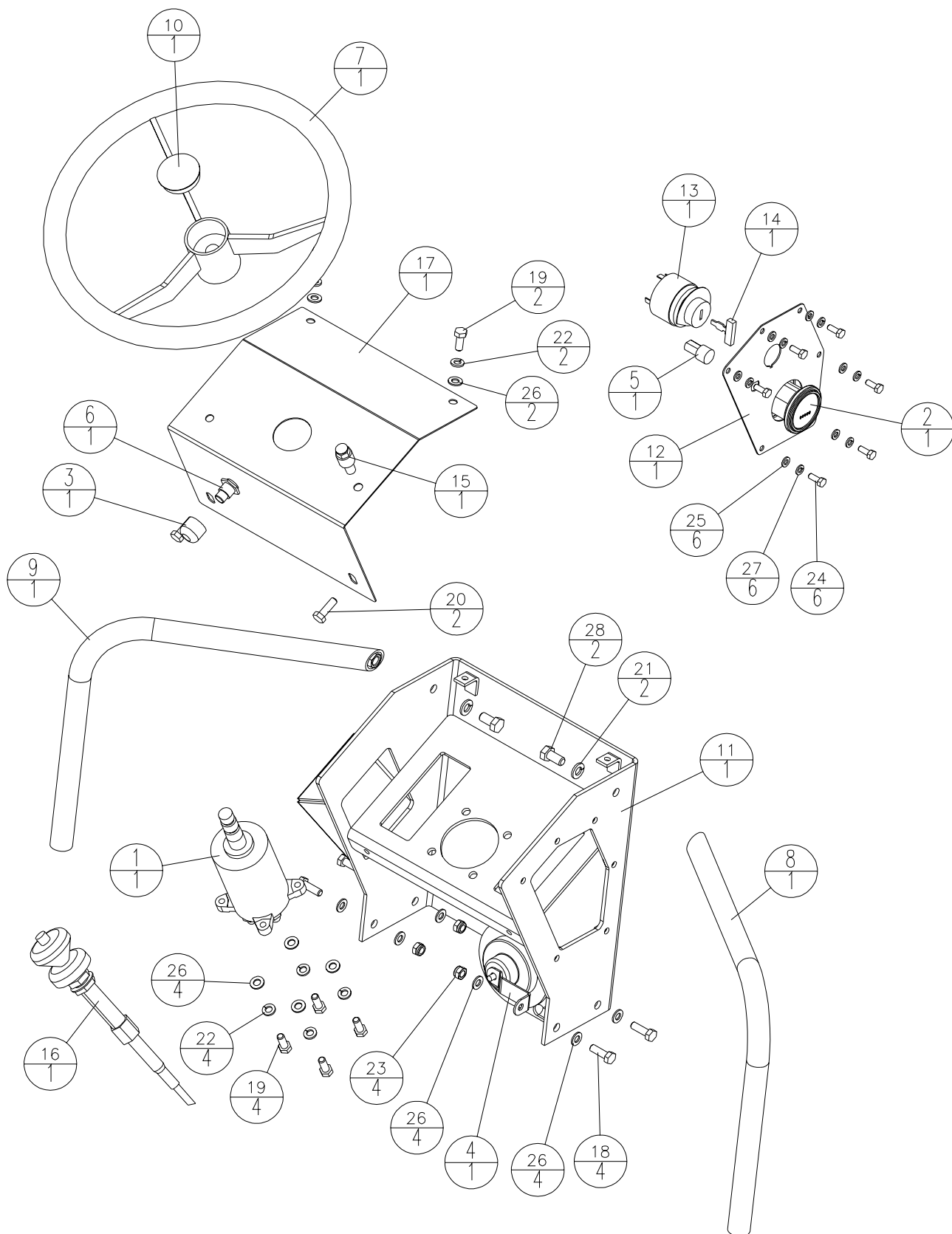
4.26 Steering Console WP3100R

ITEM	PART NO.	DESCRIPTION	QTY
1	31276	IGNITION SWITCH HONDA	1
2	31349	ASSEMBLY CABLE CHOKE	1
3	32350	THROTTLE ASSEMBLY	1
4	36268	HOUR METER	1
5	37079	BUTTON SWITCH MOMENTARY	1
6	38667	HORN 12V 125 dB	1
7	39203	WSHR FLATTENED UNIDRM #14	1
8	39204	WSHR NYLON UNIDRUM #13	1
9	39612	SWITCH MOMENTARY PUSH	1
10	41017	WHEEL STEERING	1
11	43644-2	WELD GRAB BAR RH	1
12	43645-2	WELD GRAB BAR LH	1
13	46363	KEY IGNITION 8 HONDA	1
14	47218	CAP WHEEL STEERING	1
15	50124	CONTROL STEERING	1
16	50125-2	WELD STEERING FRAME	1
17	50412-2	COVER STEERING ROPS	1
18	80087	HHCS M8-1.25 X 25 8.8 ZN	4
19*	80406	HHCS M8-1.25 X 20 8.8 ZN	6
20	80802	HWHST M8-1.25 x 25 TY-D ZN	2
21	80804	WSHRL M10 SPLIT ZN	2
22	80812	WSHRL M8 SPLIT ZN	4
23	80817	NUTNY M8-1.25 ZN	4
24	80850	NUTNY M5-.8 ZN	4
25	80851	NUTNY M6-1 ZN	1
26	80855	WSHR FLAT M5 X 10 ZN	8
27	80857	WSHR FLAT M8 X 16 ZN	14
28*	80886	HHCS M10-1.5 X 20 8.8 ZN	2
29	81002	HHCS M5-.8 X 20 8.8 ZN	4

* LOCTITE 262

4. PARTS LIST

4.27 Steering Console WP3100D



4. PARTS LIST

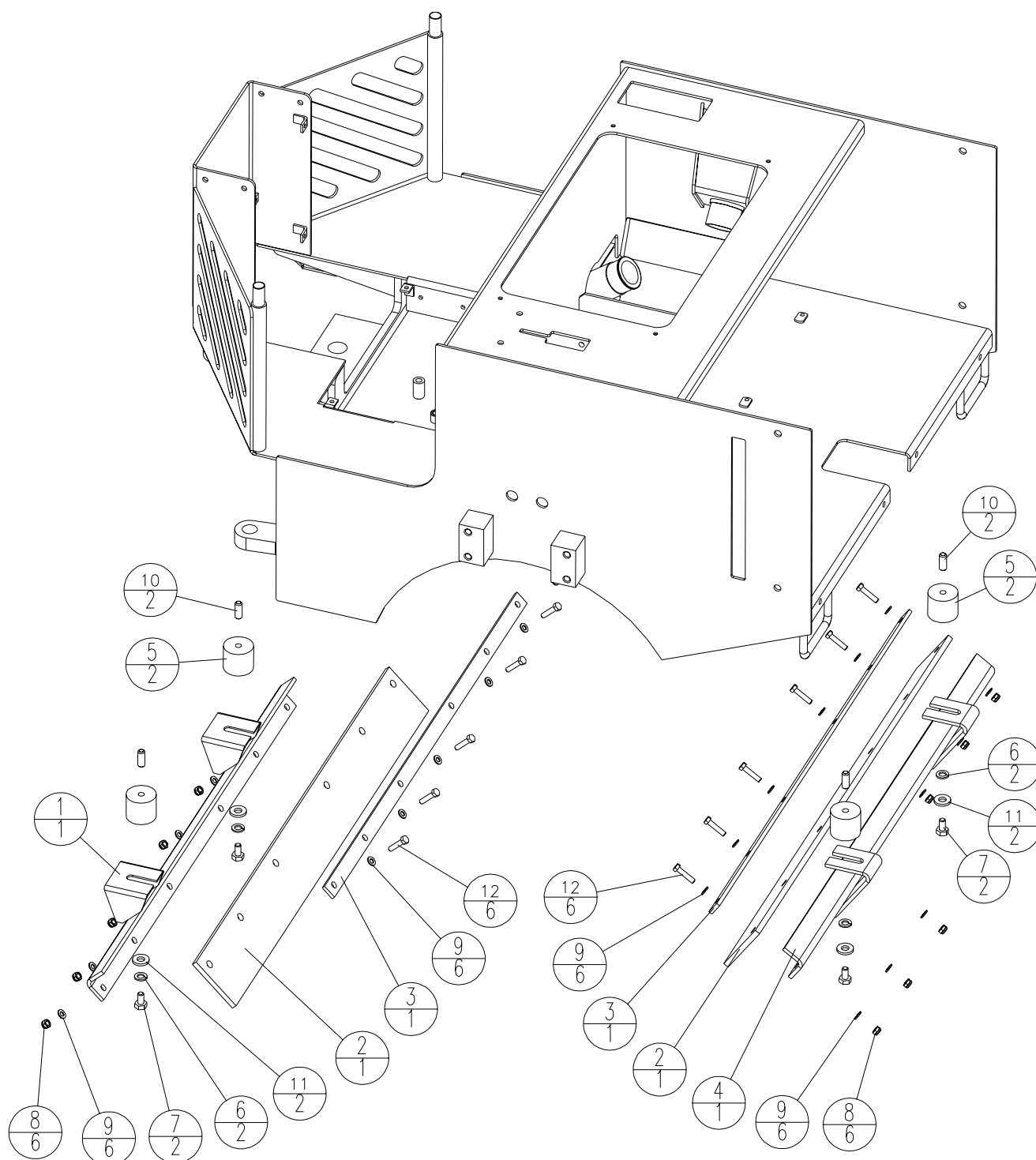
4.27 Steering Console WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	30431	VALVE HYDRAULIC STEERING 1450 PSI	1
2	36268	HOUR METER	1
3	37079	BUTTON SWITCH MOMENTARY	1
4	38667	HORN 12V 125 dB	1
5	38711	HOLDER FUSE 1/4 X 1-1/4	1
6	39612	SWITCH MOMENTARY PUSH	1
7	41017	WHEEL STEERING	1
8	43644-2	WELD GRAB BAR RH	1
9	43645-2	WELD GRAB BAR LH	1
10	47218	CAP WHEEL STEERING	1
11	50372-2	WELD FRAME STEERING WP3100D	1
12	50374-2	COVER KEY SWITCH WP3100D	1
13	50375	SWITCH STARTER	1
14	50376	KEY SWITCH STARTER	1
15	50377	LAMP INDICATOR PRE-HEAT	1
16	50402	CABLE THROTTLE KUBOTA D722	1
17	50412-2	COVER STEERING ROPS	1
18	80087	HHCS M8-1.25 X 25 8.8 ZN	4
19*	80406	HHCS M8-1.25 X 20 8.8 ZN	6
20	80802	HWHST M8-1.25 x 25 TY-D ZN	2
21	80804	WSHRL M10 SPLIT ZN	2
22	80812	WSHRL M8 SPLIT ZN	6
23	80817	NUTNY M8-1.25 ZN	4
24*	80836	HHCS M6-1 X 16 8.8 ZN	6
25	80856	WSHR FLAT M6 X 12 ZN	6
26	80857	WSHR FLAT M8 X 16 ZN	14
27	80860	WSHRL M6 SPLIT ZN	6
28*	80886	HHCS M10-1.5 X 20 8.8 ZN	2

* LOCTITE 262

4. PARTS LIST

4.28 Rear Scrapers WP3100, WP3100R, WP3100D



4. PARTS LIST

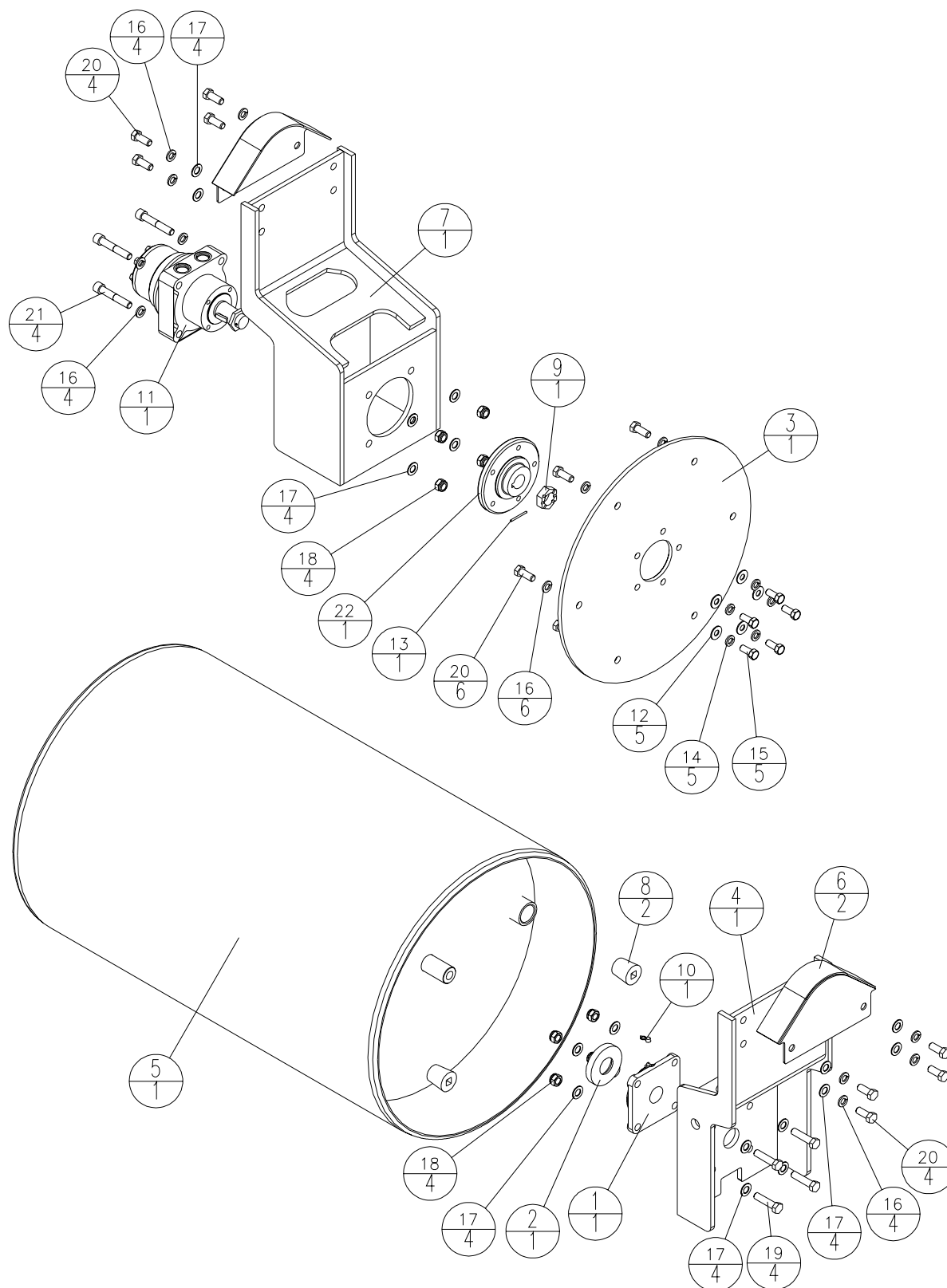
4.28 Rear Scrapers WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	43587-2	WELD SCRAPER INNER	1
2	43591	SCRAPER 3/8X4X35.50	2
3	43596-2	BACKER SCRAPER	2
4	43597-2	WELD SCRAPER OUTER	1
5	47382	SHOCKMOUNT	4
6	80805	WSHRL M12 SPLIT ZN	4
7*	80808	HHCS M12-1.75 x 20 8.8 ZN	4
8	80817	NUTNY M8-1.25 ZN	12
9	80857	WSHR FLAT M8 X 16 ZN	24
10*	80874	SHSS M12-1.75 X 30 45H ZN	4
11	80891	WSHR FLAT M12 X 28 ZN	4
12	80892	HHCS M8-1.25 X 35 8.8 ZN	12

* LOCTITE 262

4. PARTS LIST

4.29 Rear Drum WP3100, WP3100R, WP3100D



4. PARTS LIST

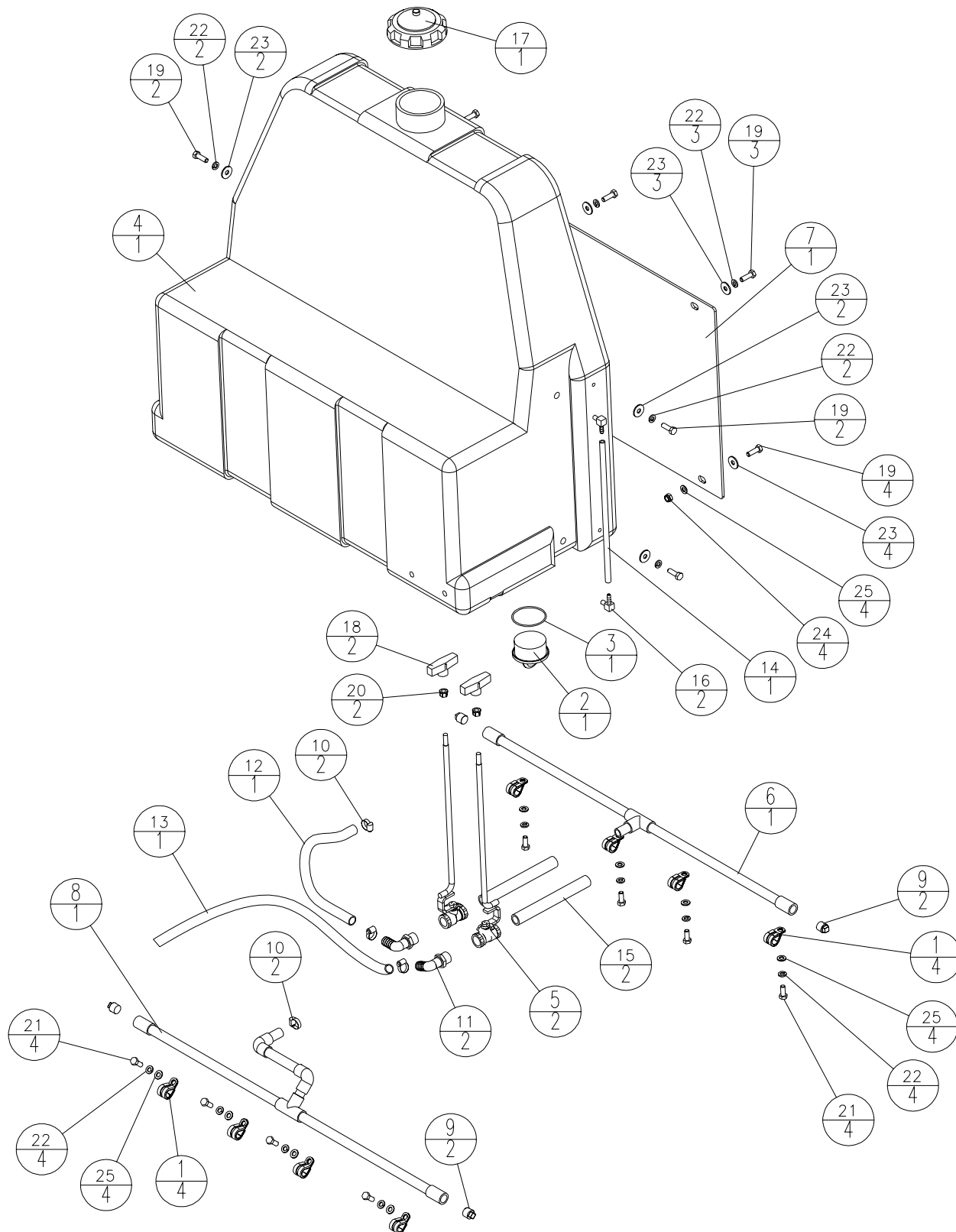
4.29 Rear Drum WP3100, WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	32206	BEARING FLG 1.250	1
2	42138	SPACER DRUM SR2500	1
3	43552-2	PLATE DRIVE REAR LH	1
4	43574-2	Weld Hanger Rear RH	1
5	43583-2	DRUM WELD/MACHINE REAR	1
6	43668-2	WELD SIDE COVER	2
7	43688-2	WELD HANGER LH REAR	1
8	46172	PLUG 1 NPT SQ SOC BLK	2
9	46729	NUT 1-20	1
10	47001	CAP GREASE FITTING	1
11	50122	MOTOR HYD GEROTOR 15.14CIR 2500PSI	1
12	80043	WSHR WROT 3/8 ZN	5
13	80316	PINCT 1/8 X 1-1/2 ZN	1
14	80335	WSHRL 7/16 MED SPLIT ZN	5
15*	80594	HHCS 7/16-20 X 1 GR5 ZN	5
16	80805	WSHRL M12 SPLIT ZN	18
17	80807	WSHR FLAT M12 X 24 ZN	20
18	80830	NUTNY M12-1.75 ZN	8
19*	80844	HHCS M12-1.75 X 50 8.8 ZN	4
20*	80873	HHCS M12-1.75 X 30 10.9 ZN	14
21*	80945	SHCS M12-1.75 X 70 8.8 ZN	4
22	43551R	HUB WHEEL MOTOR MACH.	1

* LOCTITE 262

4. PARTS LIST

4.30 Water Tank WP3100, WP3100R



4. PARTS LIST

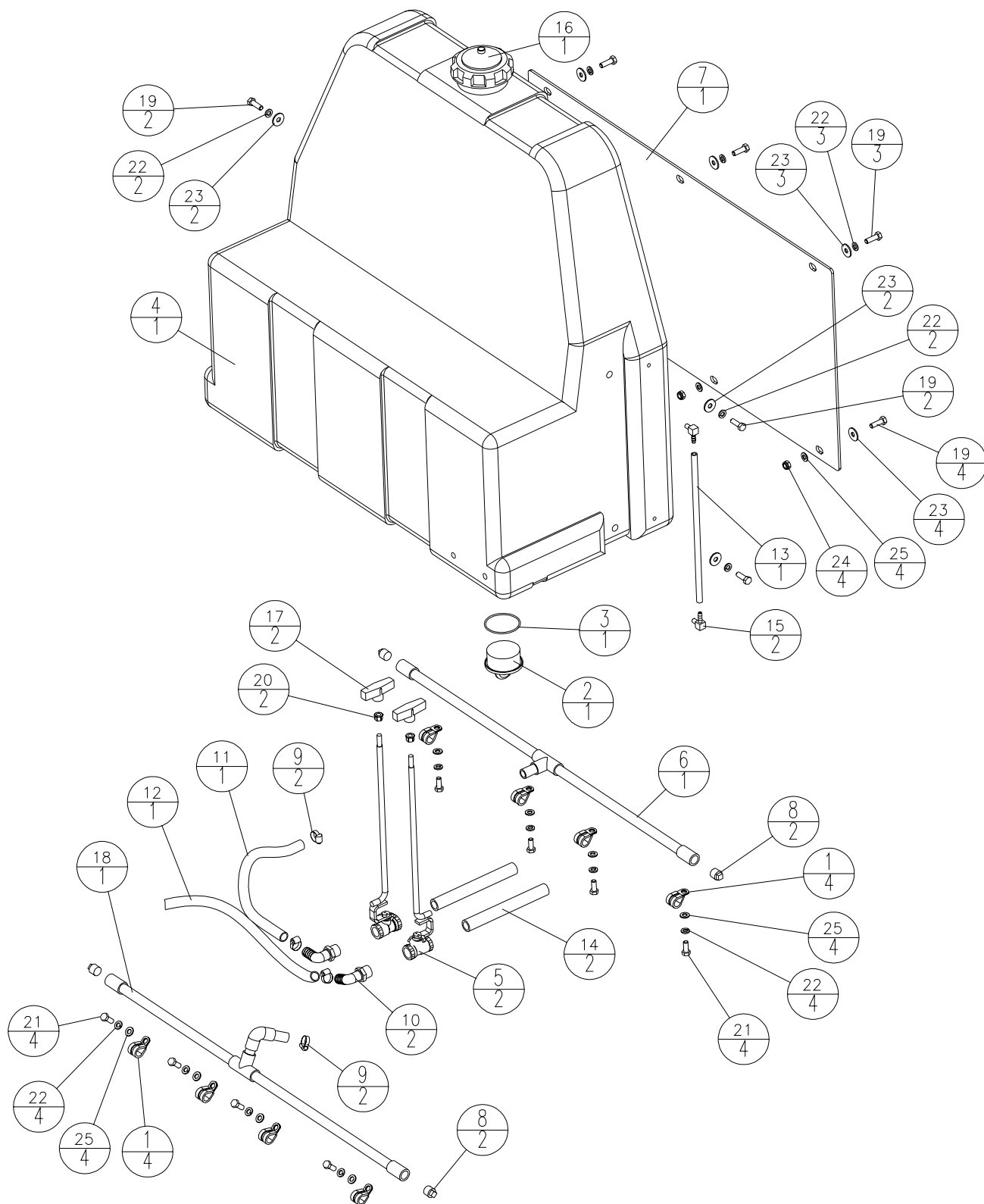
4.30 Water Tank WP3100, WP3100R

ITEM	PART NO.	DESCRIPTION	QTY
1	35448	CLAMP 5/8 RUBBER LOOP	8
2	37866	PLUG DRAIN WATER TANK	1
3	37867	O-RING BONAR	1
4	43600	TANK WATER 40 GALLON	1
5	43630	ASSY VALVE/ROD WP3100	2
6	43632	SPRINKLER ASSY REAR	1
7	43634	PANEL REAR	1
8	43687	SPRINKLER ASSY FRONT	1
9	46113	PLUG 3/8 NPT SQHD	4
10	46888	CLAMP HOSE 1/2in	4
11	46889	FTG NYLON 90 1/2 NPT 5/8 HOSE BARB	2
12	46890	HOSE WATER 5/8in X 19 BLK	1
13	46891	HOSE WATER 5/8in X 60 BLK	1
14	46894	TUBE TEFLON .25in X 12.125in LG	1
15	46895	NIPPLE PIPE 1/2 NPT X 7in LG	2
16	46896	FTG 90 1/8 NPT 1/4 HOSE BARB	2
17	47241	CAP PLASTIC3-1/2WTR RRV	1
18	47379	KNOB WATER VALVE	2
19	80087	HHCS M8-1.25 X 25 8.8 ZN	11
20	80246	NUTKP 5/16-18 ZN	2
21	80406	HHCS M8-1.25 X 20 8.8 ZN	8
22	80812	WSHRL M8 SPLIT ZN	15
23	80813	WSHR FLAT M8 X 24 ZN	11
24	80817	NUTNY M8-1.25 ZN	4
25	80857	WSHR FLAT M8 X 16 ZN	12

* LOCTITE 262

4. PARTS LIST

4.31 Water Tank WP3100D



4. PARTS LIST

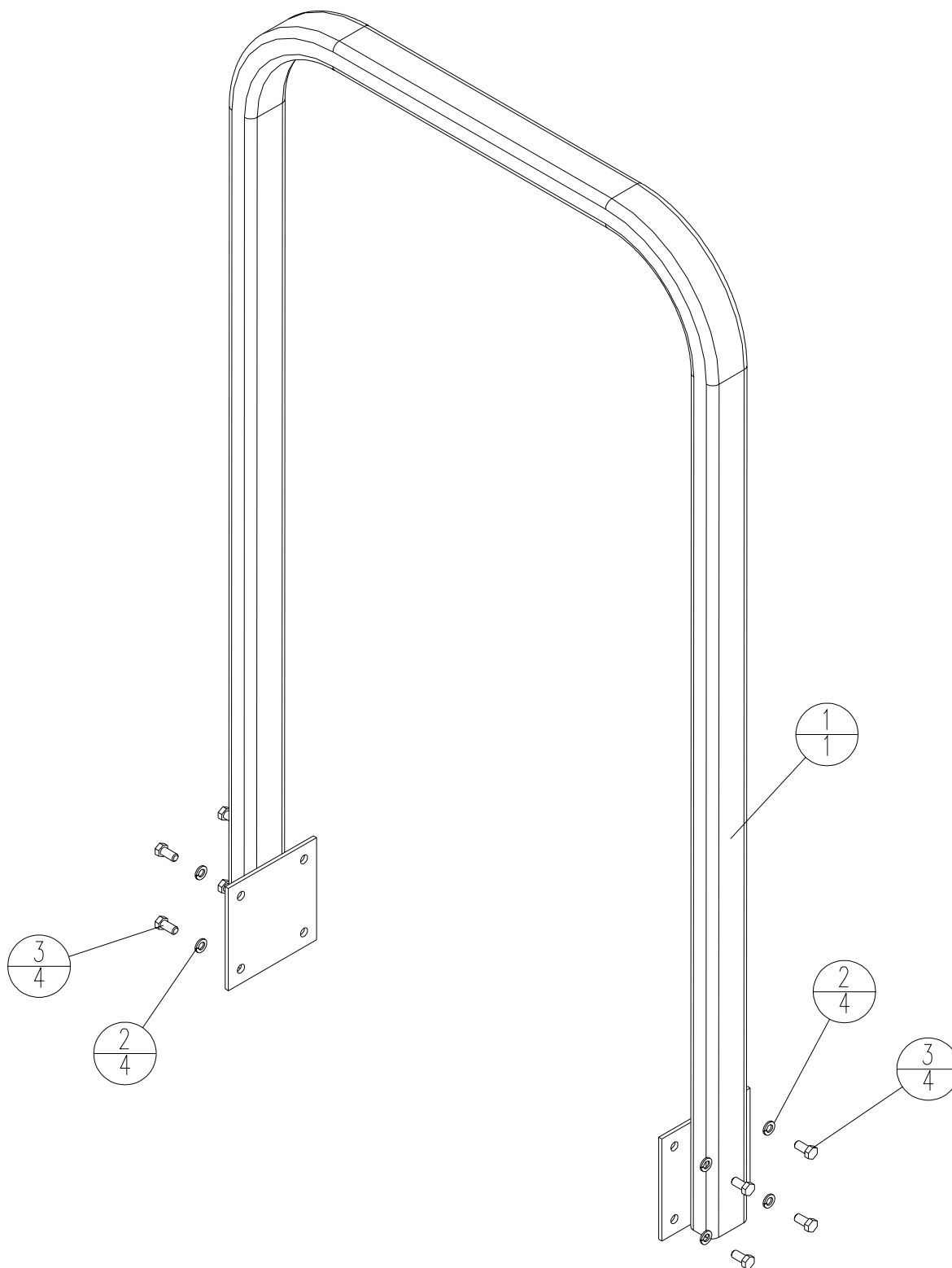
4.31 Water Tank WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	35448	CLAMP 5/8 RUBBER LOOP	8
2	37866	PLUG DRAIN WATER TANK	1
3	37867	O-RING BONAR	1
4	43600	TANK WATER 40 GALLON	1
5	43630	ASSY VALVE/ROD WP3100	2
6	43632	SPRINKLER ASSY REAR	1
7	43634	PANEL REAR	1
8	46113	PLUG 3/8 NPT SQHD	4
9	46888	CLAMP HOSE 1/2in	4
10	46889	FTG NYLON 90 1/2 NPT 5/8 HOSE BARB	2
11	46890	HOSE WATER 5/8in X 19 BLK	1
12	46891	HOSE WATER 5/8in X 60 BLK	1
13	46894	TUBE TEFLON .25in X 12.125in LG	1
14	46895	NIPPLE PIPE 1/2 NPT X 7in LG	2
15	46896	FTG 90 1/8 NPT 1/4 HOSE BARB	2
16	47241	CAP PLASTIC3-1/2WTR RRV	1
17	47379	KNOB WATER VALVE	2
18	50405	SUBASM SPRINKLER FRONT WP3100D	1
19	80087	HHCS M8-1.25 X 25 8.8 ZN	11
20	80246	NUTKP 5/16-18 ZN	2
21	80406	HHCS M8-1.25 X 20 8.8 ZN	8
22	80812	WSHRL M8 SPLIT ZN	15
23	80813	WSHR FLAT M8 X 24 ZN	11
24	80817	NUTNY M8-1.25 ZN	4
25	80857	WSHR FLAT M8 X 16 ZN	12

* LOCTITE 262

4. PARTS LIST

4.32 ROPS WP3100R, WP3100D



4. PARTS LIST

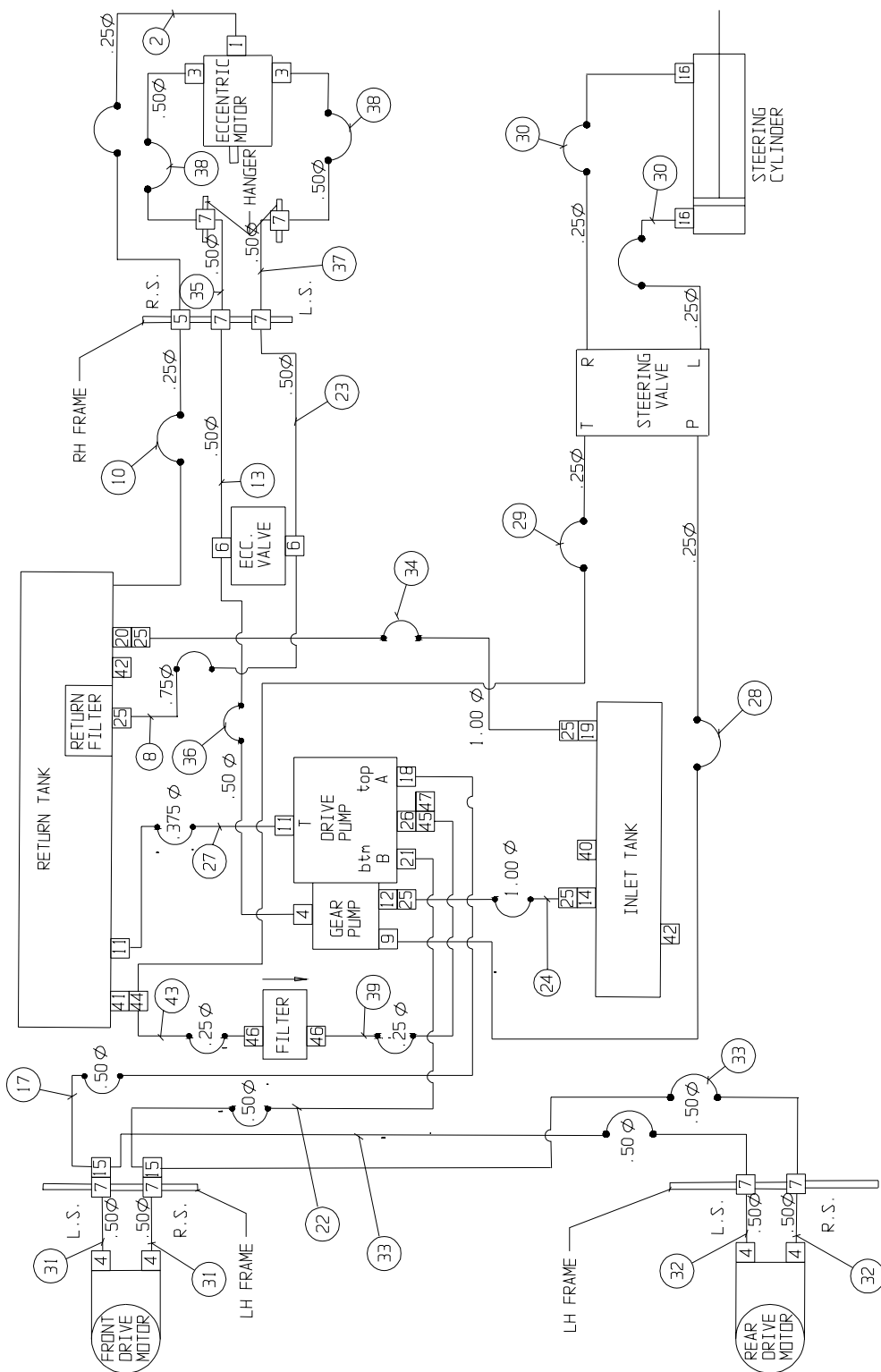
4.32 ROPS WP3100R, WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	44617	WELD ROPS	1
2	80805	WSHRL M12 SPLIT ZN	8
3*	80887	HHCS M12-1.75 X 25 8.8 ZN	8

* LOCTITE 262

4. PARTS LIST

4.33 Piping Diagram WP3100/WP3100R



DDR039_10

4. PARTS LIST

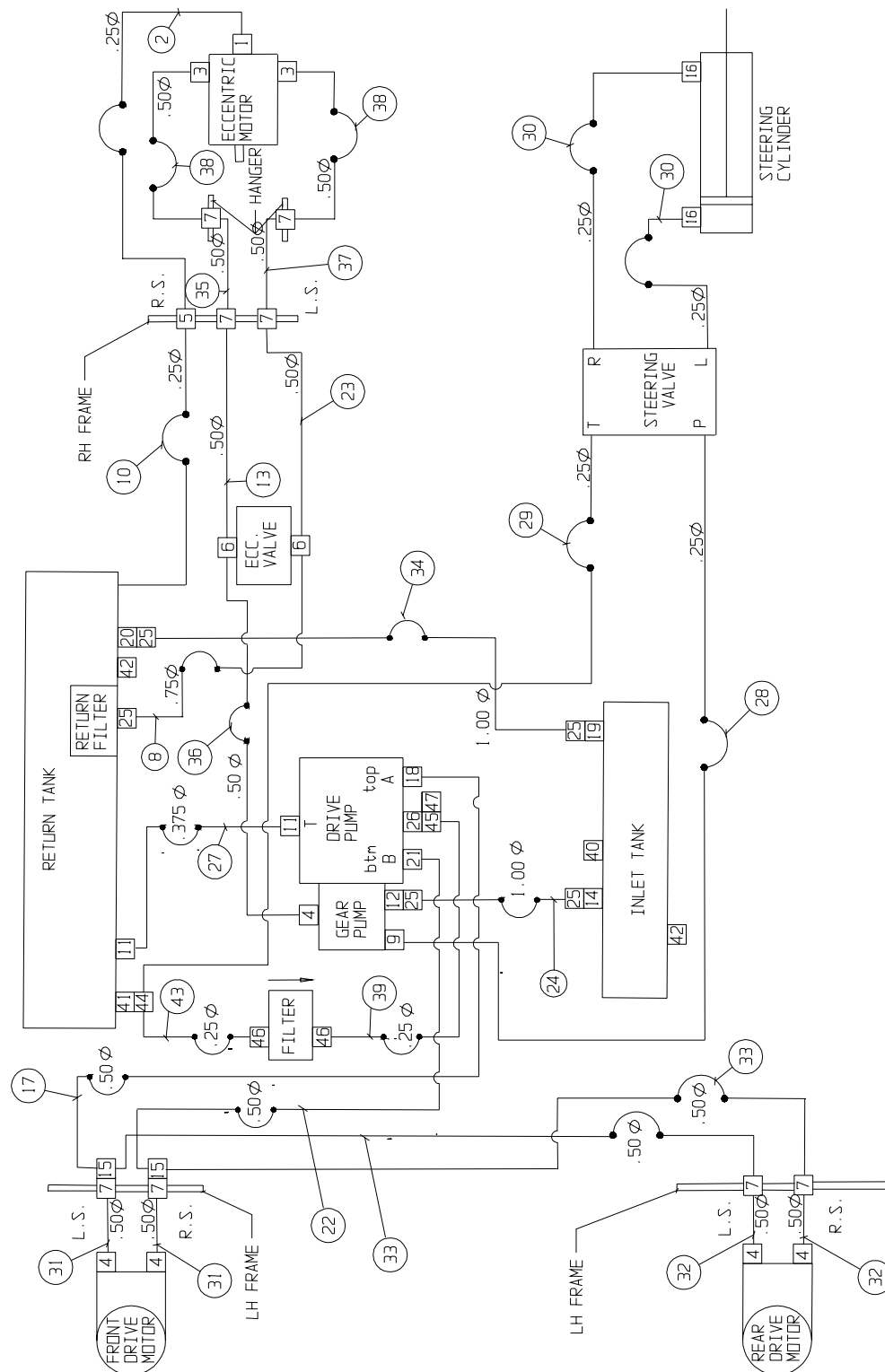
4.33 Piping Diagram WP3100/WP3100R

NO	STONE P/N	DESCRIPTION	QTY
1	46848	FITTING HYD S 4 DRFS 4 NPT	1
2	46849	HOSE HYD 4 EL EL 37.5in	1
3	46850	FITTING HYD S90 8 DRFS 12 DR	2
4	46585	FITTING HYD S 8 DRFS 10 DR	5
5	46852	FITTING HYD BHS 4 DRFS	1
6	46853	FITTING HYD TB 8 DRFS 8 DR	2
7	46854	FITTING HYD BHL90 8 DRFS 8 DRFS	8
8	46855	HOSE HYD 3/4in 13/16 DF 90 1 END	1
9	46865	FITTING HYD S 4 DRFS 6 DR	1
10	46857	HOSE HYD 4 EL EL 9in	1
11	46858	FITTING HYD S 6 DRFS 6 DR	2
12	47599	FITTING HYD 45 16 HB 12 DR	1
13	46707	TUBE	1
14	46861	TUBE SUCTION 45 1in HOSE 3/4 NPT	1
15	46862	FITTING HYD SNTR 8 DRFS 8 DRFS	2
16	46863	FITTING HYD S 6 DRFS 6 NPT	2
17	47600	HOSE HYD 8 EL STR 16.75in	1
18	47609	FITTING HYD S90 8 DRFS 8 DR	1
19	46866	FITTING HYD 90 16 HB 1 NPT	1
20	46867	FITTING HYD S 16 HB 1 NPT	1
21	46579	FITTING HYD S 8 DRFS 8 DR	1
22	47607	HOSE HYD 8 EL STR 15.50in	1
23	46708	TUBE 1/2IN X .065 WALL	1
24	47606	HOSE HYD 16 8in	1
25	46872	CLAMP HOSE 3/4 - 1 3/4	5
26	47651	FITTING HYD 90 4 DRFS 4 DR	1
27	47610	HOSE 3/8in 11/16DF 90T 11/16DF 45T 20in	1
28	47602	HOSE HYD 4 EL STR 48.25in	1

DDR039_20

4. PARTS LIST

4.33 Piping Diagram WP3100/WP3100R Cont'd.



00R039_10

4. PARTS LIST

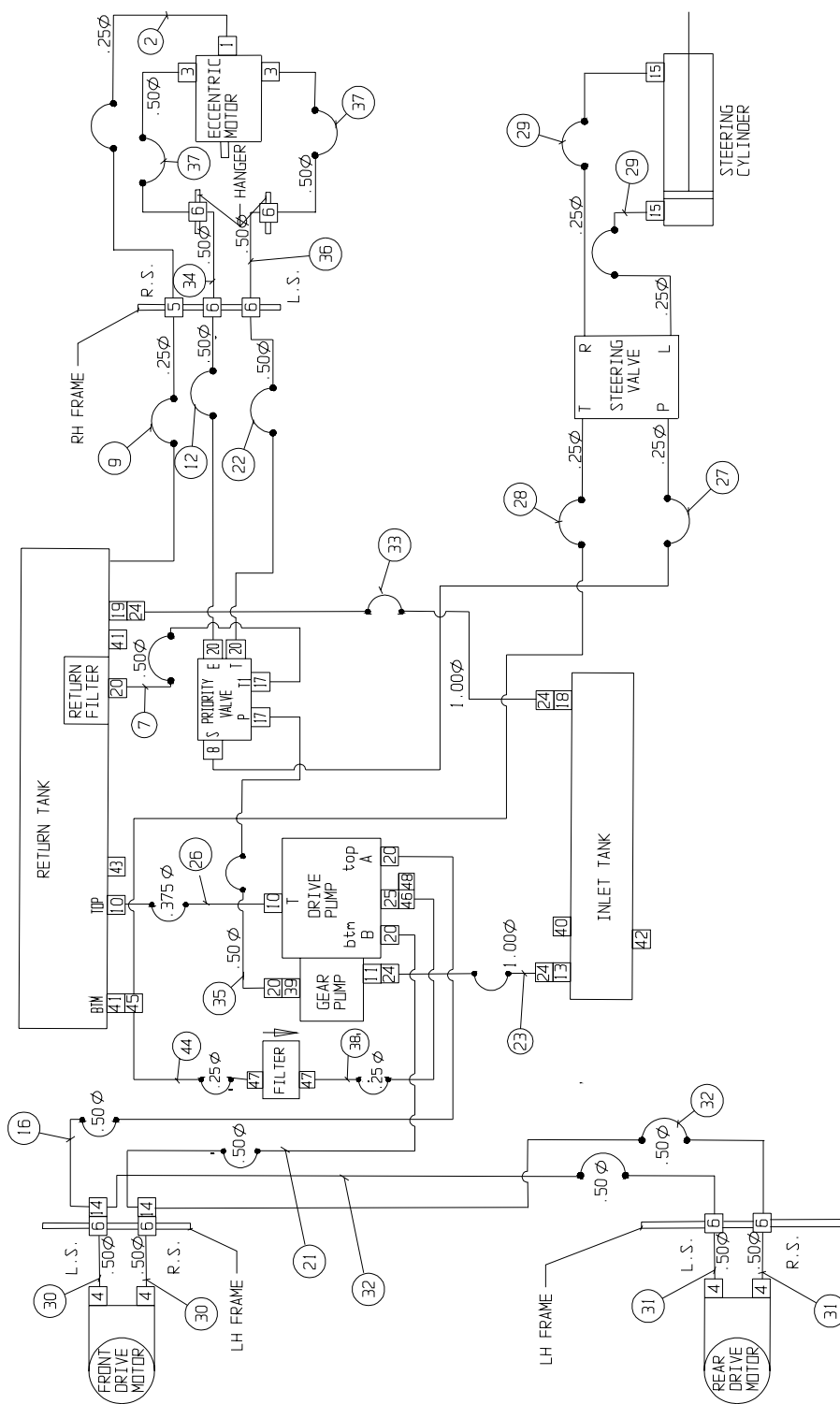
4.33 Piping Diagram WP3100/WP3100R Cont'd.

29	47650	HOSE HYD 4 STR EL 55in	1
30	47604	HOSE HYD 4 EL STR 63in	2
31	41060	TUBE HYD .50in X .065in	2
32	41059	TUBE HYD .50in X .065in	2
33	46880	HOSE HYD 1/2in 8 OF 45 8 OF 68in	2
34	46881	HOSE HYD 1in X 16.5in BLK	1
35	46717	TUBE 1/2IN X .065 WALL	1
36	46883	HOSE HYD 8 STR STR 19.25in	1
37	46718	TUBE 1/2IN X .065 WALL	1
38	46885	HOSE HYD 1/2in 8 OF 8 OF 45 20.5in	2
39	47648	HOSE HYD 4 STR 4 EL 11.5IN	1
40	46107	PLUG 1/2 NPT SQ HD BLK	1
41	39814	VALVE CHECK 100 PSI	1
42	46890	PLUG 3/4 NPT MAGNETIC SQ HD	2
43	47649	HOSE HYD 4 STR EL 15IN	1
44	46971	FITTING HYD SNTB 6	1
45	47652	FITTING HYD SNTR 4	1
46	45172	FITTING HYD 90 4DRFS 6DR	2
47	47653	FITTING HYD QUICK 4	1

DDR039_3D

4. PARTS LIST

4.34 Piping Diagram WP3100D



00R046 10

4. PARTS LIST

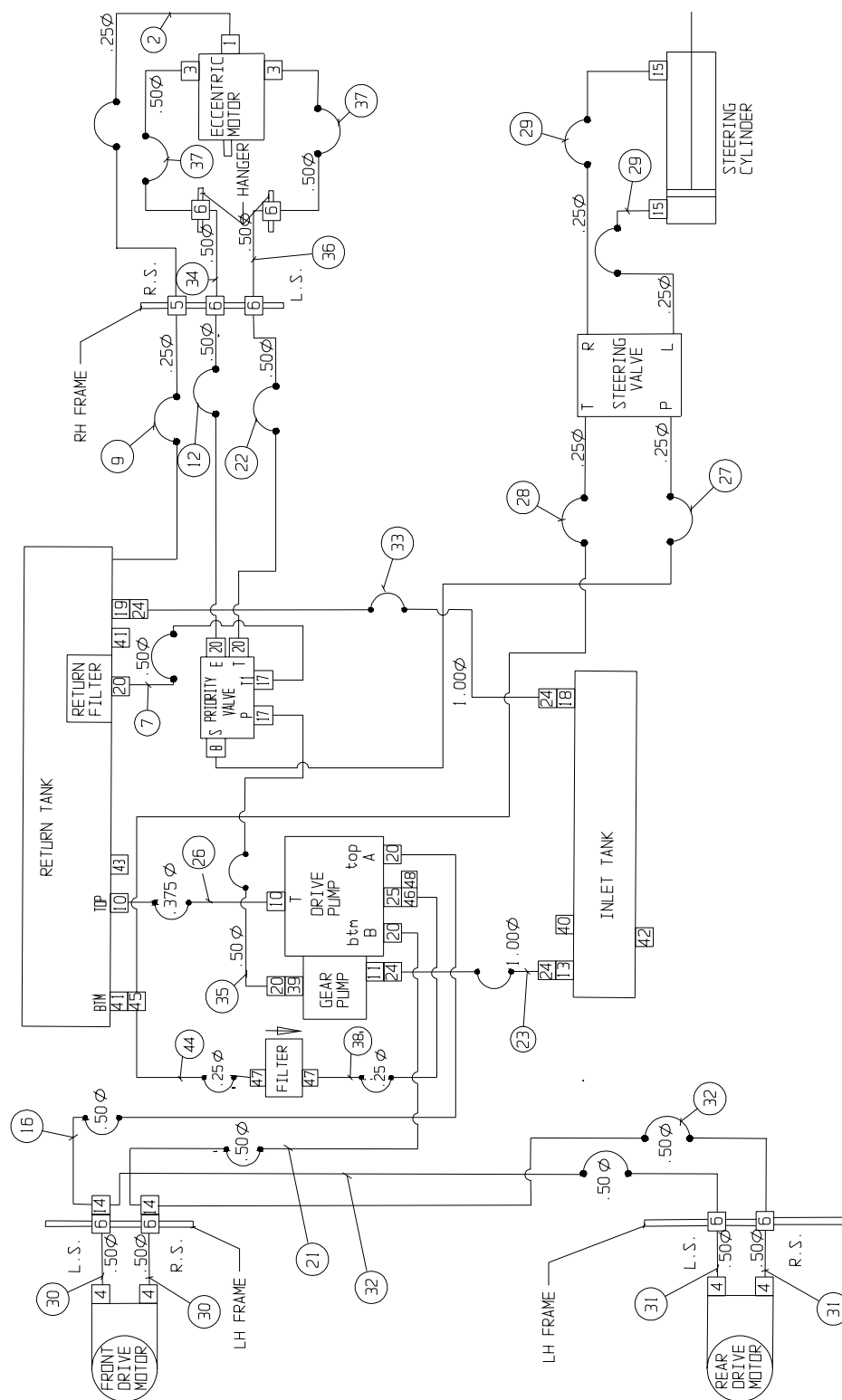
4.34 Piping Diagram WP3100D

NO	STONE P/N	DESCRIPTION	QTY
1	46848	FITTING HYD S 4 DRFS 4 NPT	1
2	46849	HOSE HYD 4 EL EL 37.5in	1
3	46850	FITTING HYD S90 8 DRFS 12 DR	2
4	46585	FITTING HYD S 8 DRFS 10 DR	4
5	46852	FITTING HYD BHS 4 DRFS	1
6	46854	FITTING HYD BHU90 8 DRFS 8 DRFS	8
7	47627	HOSE HYD 8 STR STR 23.25in 3000PSI	1
8	46631	FITTING HYD S 4 DRFS 4 DR	1
9	46857	HOSE HYD 4 STR EL 9IN	1
10	46858	FITTING HYD S 6 DRFS 6 DR	2
11	47611	FITTING HYD 45 16 HB 12 DR	1
12	47628	HOSE HYD 8 EL STR 16.25in 3000PSI	1
13	46861	TUBE SUCTION 45 1in HOSE 3/4 NPT	1
14	47621	FITTING HYD TB 8 DRFS 8 DR	2
15	46863	FITTING HYD S 6 DRFS 6 NPT	2
16	47622	HOSE HYD 8 EL STR 26.25in 3000PSI	1
17	46581	FITTING HYD EL 8 DRFS 8 DR	2
18	46866	FITTING HYD 90 16 HB 1 NPT	1
19	46867	FITTING HYD S 16 HB 1 NPT	1
20	46579	FITTING HYD S 8 DRFS 8 DR	6
21	47623	HOSE HYD 8 EL STR 24.63in 3000PSI	1
22	47629	HOSE HYD 8 EL STR 17.00in 3000PSI	1
23	47624	HOSE HYD 16 7.25in 300PSI	1
24	46872	CLAMP HOSE 3/4 - 1 3/4	4
25	47651	FITTING HYD 90 4 DRFS 4 DR	1
26	47610	HOSE 3/8in 11/16OF 90T 11/16OF 45T 20in	1
27	47630	HOSE HYD 4 EL STR 54.50in 3000PSI	1
28	47650	HOSE HYD 4 STR EL 55IN	1

DDR046_20

4. PARTS LIST

4.34 Piping Diagram WP3100D Cont'd.



000046_10

4. PARTS LIST

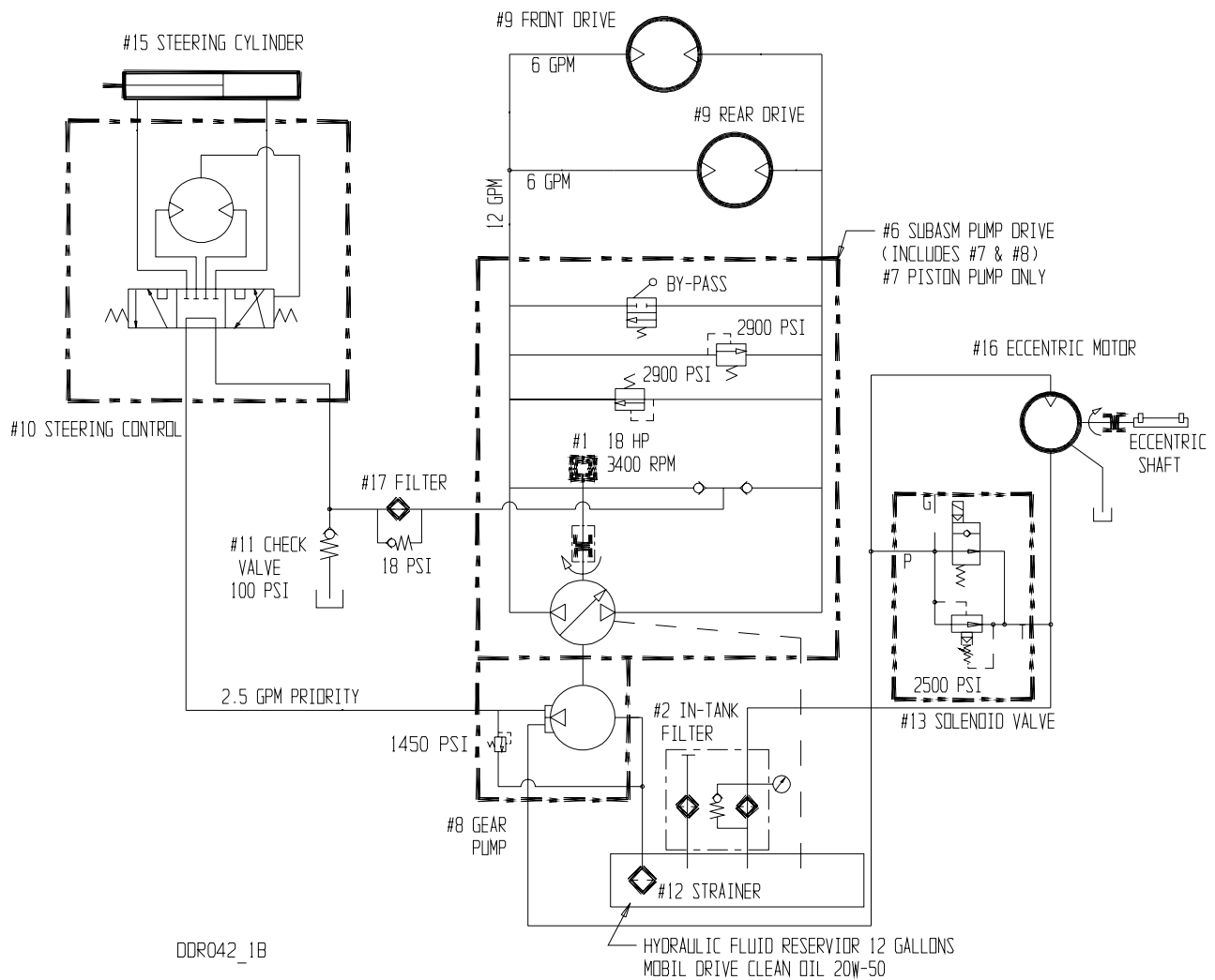
4.34 Piping Diagram WP3100D Cont'd.

NO	STONE P/N	DESCRIPTION	QTY
29	47604	HOSE HYD 4 EL STR 63in	2
30	41060	TUBE HYD .50in X .065in	2
31	41059	TUBE HYD .50in X .065in	2
32	47625	HOSE HYD 8 EL STR 67.75in 3000PSI	2
33	46881	HOSE HYD 1in X 16.5in BLK	1
34	46717	TUBE 1/2IN X .065 WALL	1
35	47631	HOSE HYD 8 EL STR 16.00in 3000PSI	1
36	46718	TUBE 1/2IN X .065 WALL	1
37	46885	HOSE HYD 1/2in 8 OF 8 OF 45 20.5in	2
38	47648	HOSE HYD 4 STR EL 11.5IN	1
39	47642	FITTING HYD R 8 DR 10 DR	1
40	46107	PLUG 1/2 NPT SQ HD BLK	1
41	39814	VALVE CHECK 100 PSI	1
42	46774	PLUG 3/4 NPT MAGNETIC SQ HD	2
43	32300	PLUG GAUGE SIGHT	1
44	47649	HOSE HYD 4 STR EL 15IN	1
45	46971	FITTING HYD SNTB 6	1
46	47652	FITTING HYD SNTB 4	1
47	45172	FITTING HYD 90 4 DRFS 6 DR	2
48	47653	FITTING HYD QUICK 4	1

DDR046_30

4. PARTS LIST

4.35 Hydraulic Schematic WP3100/WP3100R



4. PARTS LIST

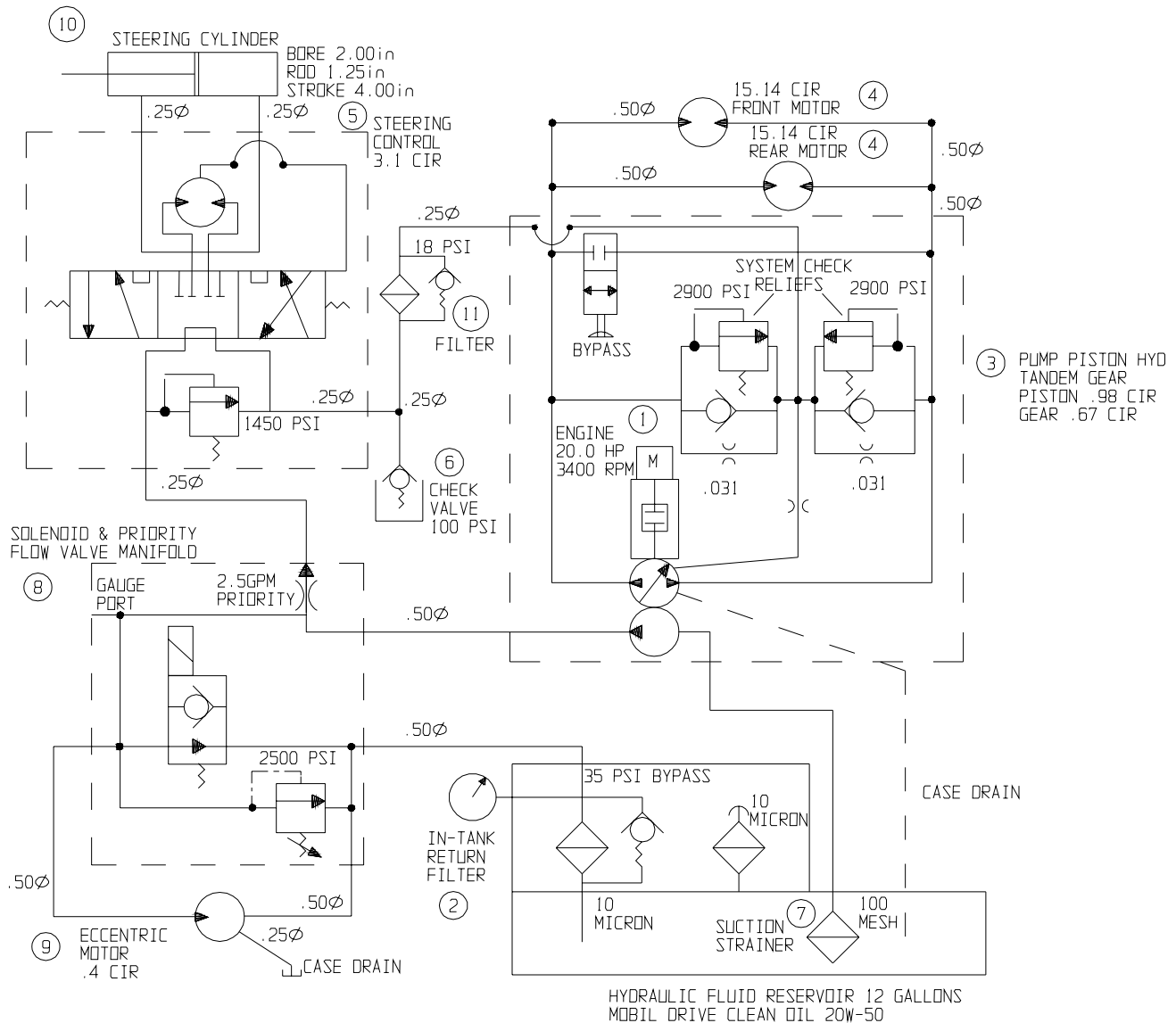
4.35 Hydraulic Schematic WP3100/WP3100R

ITEM	PART NO.	DESCRIPTION	QTY
1	30348	ENGINE 18HP HONDA	1
2	32463	KIT FILTER IN-TANK	1
3	36988	ELEMENT HYD FILTER 10M	1
4	36989	ELEMENT AIR HYD BREATHER 10M	1
5	36987	GAUGE HYD FILTER INDICATOR	1
6	50129	SUBASM PUMP DRIVE	1
7	50232	PUMP PISTON HYDRAULIC 16CC	1
8	50130	PUMP GEAR 11CC	1
9	50122	MOTOR GEROTOR 15.14	2
10	50124	CONTROL STEERING	1
11	39814	VALVE CHECK 100PSI	1
12	39088	STRAINER 10GPM	1
13	39089	VALVE N/O SOL RELIEF	1
14	39232	CARTRIDGE RELIEF RV5	1
15	39750	CYLINDER 2 X 4	1
16	39232	MOTOR ECCENTRIC W/ DRAIN	1
17	31376	FILTER HYDRAULIC 10M STAUFF	1

DDRC42_2B

4. PARTS LIST

4.36 Hydraulic Schematic WP3100D



DDR043B

4. PARTS LIST

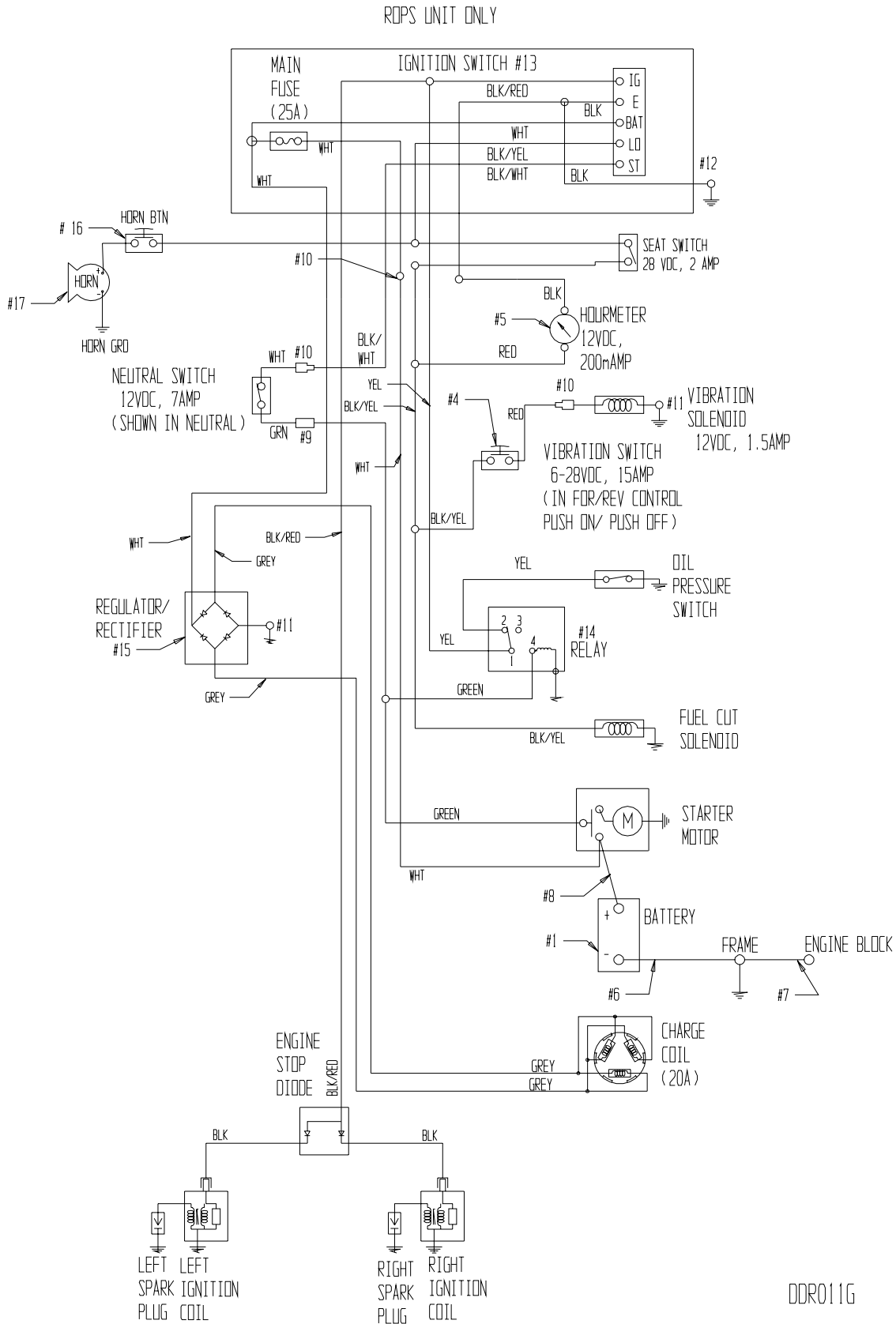
4.36 Hydraulic Schematic WP3100D

ITEM	PART NO.	DESCRIPTION	QTY
1	30429	ENGINE KUBOTA DIESEL 20.0HP	1
2	32528	KIT FILTER IN-TANK	1
3	30430	PUMP PISTON HYD .98CIR GEAR .38CIR 2900PSI	1
4	50122	MOTOR GEROTOR 15.14	2
5	30431	VALVE HYDRAULIC STEERING 1450 PSI	1
6	39814	VALVE CHECK 100 PSI	1
7	39088	STRAINER	1
8	30432	VALVE HYDRAULIC PRIORITY 2500 PSI	1
9	39810	MOTOR GEAR ECCENTRIC	1
10	39750	HOSE 1/4" 1/4NPT 9/16OF 90T	1
11	31376	FILTER HYDRAULIC 10M STAUFF	1

DDR043B

4. PARTS LIST

4.37 Wire Schematic ROPS Unit Only WP3100/WP3100R



4. PARTS LIST

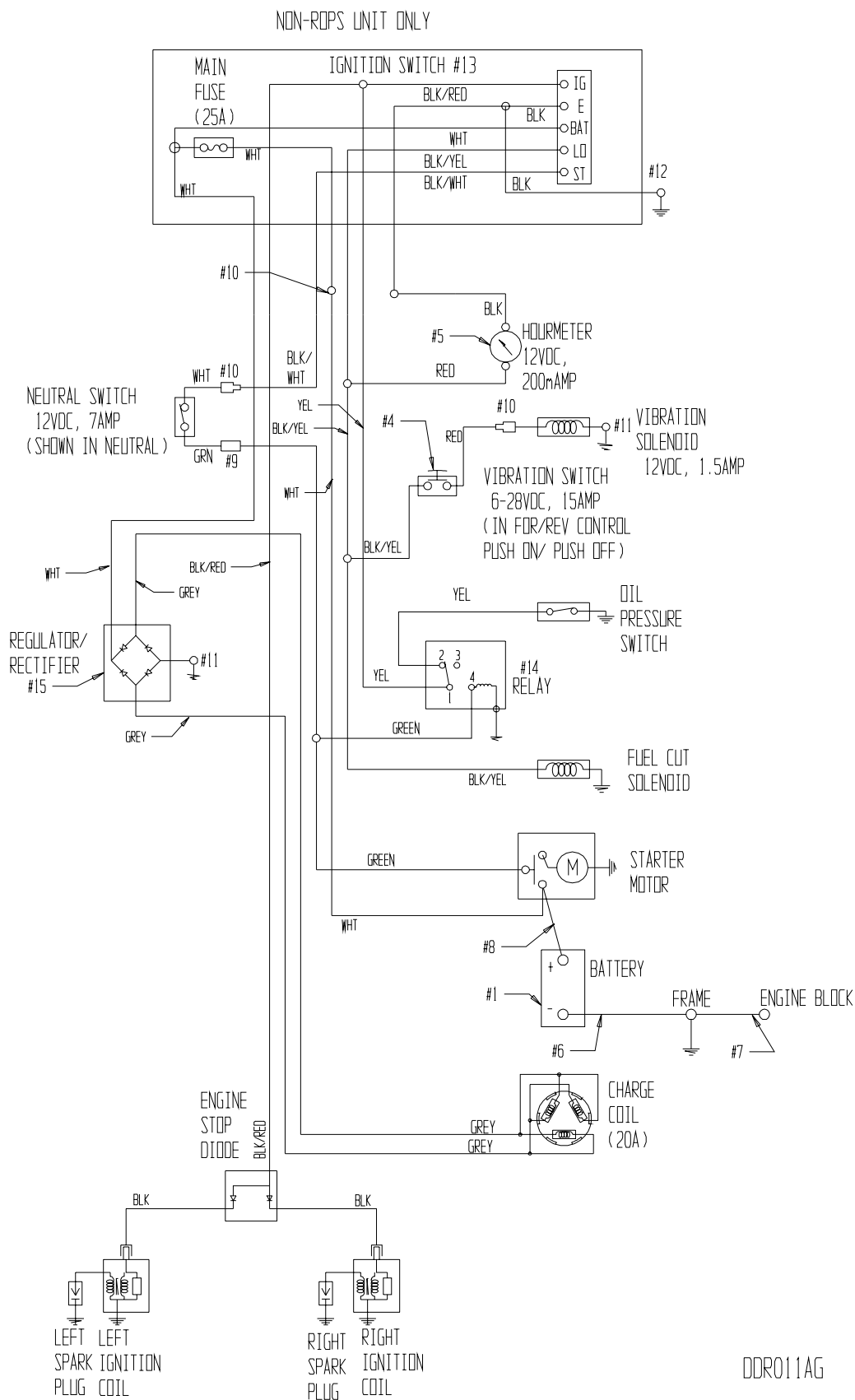
4.37 Wire Schematic ROPS Unit Only WP3100/WP3100R

ITEM	PART NO.	DESCRIPTION	QTY.
1	38543	Battery	1
2^	39746	Harness	1
3^	48446	Harness Wire (ROPS Only)	1
4	36789	Push Button Control Forward/Reverse	1
5	36268	Hourmeter	1
6	48517	Cable Battery 10in Blk	1
7	48518	Cable Battery 56in Blk	1
8	48444	Cable Battery 66in Red	1
9	48278	Term Female .25F - insul 14-16	1
10	48285	Term Male .25F - insul 14-16	3
11	36115	Term 5/16 Ring insul 14-16	2
12	36116	Term 1/4 Ring insul 14-16	1
13	31276	Ignition Switch Assembly	1
13a^	46363	Key Ignition Switch	1
13b	36399	Fuse 25A Ignition	1
14	48364	Relay Power 12 VDC	1
15	39759	Regulator / Rectifier Assembly	1
16	48423	Horn Button	1
17	38667	Horn 12V dB(A)	1
18	39321	Switch Neutral Backup	1
19	39638	Coil Eccentric Valve	1

^ Not Shown

4. PARTS LIST

4.38 Wire Schematic Non-ROPS Unit Only WP3100/WP3100R



4. PARTS LIST

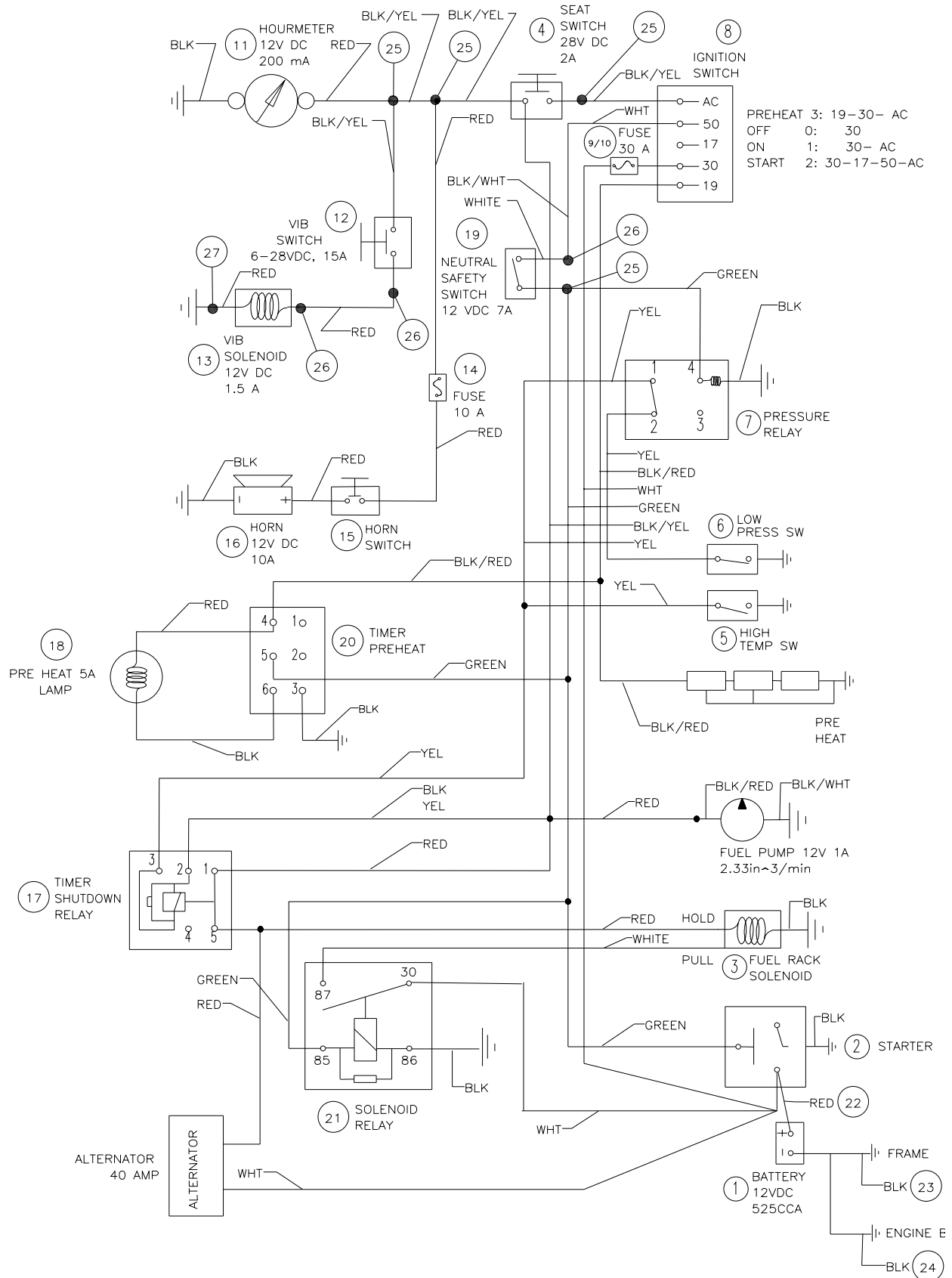
4.38 Wire Schematic Non-ROPS Unit Only WP3100/WP3100R

ITEM	PART NO.	DESCRIPTION	QTY.
1	38543	Battery	1
2^	39746	Harness	1
4	36789	Push Button Control Foward/Reverse	1
5	36268	Hourmeter	1
6	48517	Cable Battery 10in Blk	1
7	48518	Cable Battery 56in Blk	1
8	48444	Cable Battery 66in Red	1
9	48278	Term Female .25F - insul 14-16	1
10	48285	Term Male .25F - insul 14-16	3
11	36115	Term 5/16 Ring insul 14-16	2
12	36116	Term 1/4 Ring insul 14-16	1
13	31276	Ignition Switch Assembly	1
13a^	46363	Key Ignition Switch	1
13b	36399	Fuse 25A Ignition	1
14	48364	Relay Power 12 VDC	1
15	39759	Regulator / Rectifier Assembly	1
16	39321	Switch Neutral Backup	1
17	39638	Coil Eccentric Valve	1

^ Not Shown

4. PARTS LIST

4.39 Electrical Schematic WP3100D



4. PARTS LIST

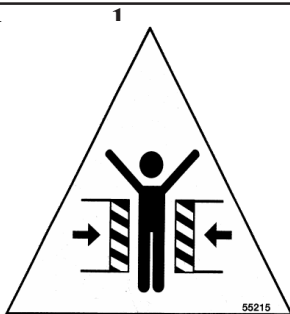
4.39 Electrical Schematic WP3100D

ITEM	P/N	DESCRIPTION	QTY
1	38543	BATTERY 12V CCA:525	1
2	48565	STARTER 12VDC	1
3	48566	STOP SOLENOID	1
4	48563	SEAT SWITCH	1
5	48568	THERMOSWITCH	1
6	48569	OIL SWITCH	1
7	48364	RELAY POWER 12VDC	1
8	50375	STARTER SWITCH	1
9	38711	FUSE HOLDER	1
10	48575	FUSE 30 AMP	1
11	36268	HOUR METER	1
12	36789	PUSH BUTTON CENTRAL FOWARD/REVERSE	1
13	39638	COIL ECCENTRIC VALVE RHINO	1
14	37076	FUSE 10A	1
15	48423	HORN BUTTON WP3100R	1
16	37092	HORN 12V DC<A>	1
17	48571	RELAY SHUTDOWN 12VDC 2 SEC	1
18	50377	LAMP PRE-HEAT INDICATOR 5A	1
19	39321	SWITCH NEUTRAL BACKUP	1
20	48573	TIMER	1
21	48401	RELAY 70A	1
22	48444	CABLE BATTERY 66" RED	1
23	48517	CABLE BATTERY 10" BLK	1
24	48518	CABLE BATTERY 56" BLK	1
25	48278	TERM. FEM.25 F-INSL 14-16	4
26	48285	TERM. MALE.25 F-INSL 14-16	3
27	36115	TERM. RING 5/16" INSL	1
28~	48574	HARNESS WIRE WP3100D	1

~ NOT SHOWN

4. PARTS LIST

4.40 Decal Identification



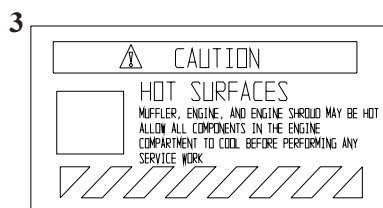
55215

LOCATION RH/LH SIDES



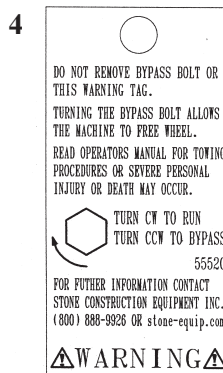
55408

LOCATION BELOW FILLER NECK



55398

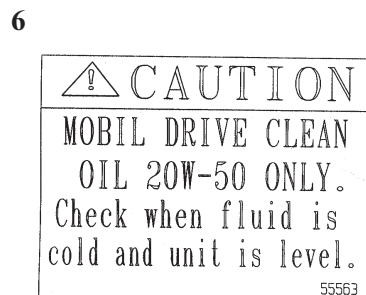
LOCATION INSIDE HOOD



55520



55395



55563



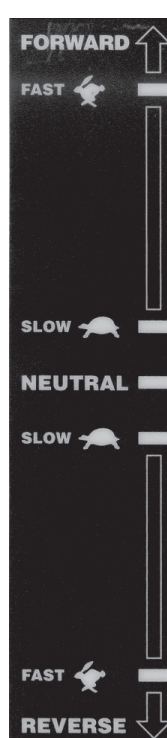
Kit 55410



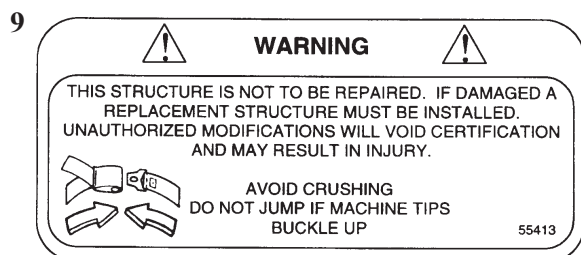
55446



Kit 55410



Kit 55410



55413

LOCATION ROLLBAR ON ROPS



4. PARTS LIST

4.40 Decal Identification

ITEM	PART NO.	DESCRIPTION
1	55215	Decal Warning Pinch Point
2	55408	Decal Unleaded Fuel Only
3	55398	Decal Warning Hot Surfaces
4	55297	Decal Bypass
5	55395	Decal Grease Weekly
6	55563	Decal Mobil 20W-50
7	55410	Kit Decal WolfPac
7a	Includes:	Forward/Reverse
7b		Water Sprinkler
7c		Parking Brake
8	55446	Decal Gasoline WP3100
9+	55413	Decal Warning ROPS
10	55156	Decal Notice
11^	55308	Decal Logo Stripe 33
12^	55309	Decal WolfPac 3100 LH
13^	55311	Decal Wolf Head
14^	55399	Decal WolfPac console
15^	55400	Decal Vib Button
16^	55542	Decal Maintenance Chart
17^	55407	Decal WolfPac 3100 RH
18^	55540	Decal WolfPac 3100D
19	55538	Decal Safety Diesel Only
20	55539	Decal Safety Diesel
21^	55537	Decal Instruction Console WP3100D

+ WP3100R only

^ Not Shown

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Stone Construction Equipment, Inc.
P.O. Box 150, Honeoye, New York 14471
Phone: (800) 888-9926
Fax: 585-229-2363
e-mail: sceny@stone-equip.com
[www: stone-equip.com](http://www.stone-equip.com)

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